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ABSTRACT

These proceedings consist of 13 presentations, most of which are followed by responses or discussant comments. The papers include "Comparable Worth: Pay Equity or Road to Ruin?" (Ferber; discussants Braconi, Zick); "Measuring Financial Satisfaction" (Davis; discussant Lown); "Can Tools for Regional Economics Be Used to Assess the Export of Family Time to the Marketplace: A Theoretical Exploration" (Olson, Olson; discussants Horton, Iams); "An Analysis of Perceived Economic and Psycho-Social Well-Being of Rural Nevada Residents with and without Investment Income" (Peters, Haldeman, Martin; discussants Burton, Longstreth); "Human Resources--Vital to the Home Based Business" (Walker, Stryker); "An Exploratory Study of Sex Role and Self Perception Effects on Spousal Reports of Influence in Family Recreation Decision Making" (Rudd, Koehler); "Learning and Consumer Decision-Making Styles" (Sproles, Kendall); "Contents of Western Regional Proceedings, 1970-79 (What Did We Report?)" (Tucker, Makela); "Reported Expenditures of University Undergraduates" (Hamby, Holyoak, Haldeman); "Effective Financial Management: A Definition and a Measure" (Schnittgrund, Baker); "Home Management-Family Economics Educators: Serving the Needs of Remarried Families" (Lown, Merfeld); "A Comparative Evaluation of the Consumer Information Catalog in Four Presidential Administrations" (Ackerman); and "Differences in Husband and Wife Coping Strategies for Nevada Dual-Earner Couples" (Cumming). (YLB)

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26th Annual Conference
"INVESTING IN HUMAN CAPITAL"

November 13-15, 1986
Miyako Hotel
San Francisco, California

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PROGRAM

WESTERN REGIONAL HOME MANAGEMENT - FAMILY ECONOMICS EDUCATORS CONFERENCE

"Investing in Human Capital"

November 13-15, 1986
San Francisco, California

Thursday, November 13, 1986

PAGE

2:00 p.m. **Registration**
2:30 p.m. **Opening General Session:**

Welcome: Donna Selnick, California State University, Sacramento

Moderator: Nancy Drennen, Colorado State University

"Comparable Worth: Pay Equity or Road to Ruin?"
Keynoter: Marianne Ferber, University of Illinois. 1

Respondents: Joan Braconi, University of California, Berkeley. 5
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5:00 p.m. **Dim Sum Reception**

7:00 p.m. **Film Festival**

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Commentator: Barbara Wolfinger, Berkeley Productions

Films: "Sister of the Bride"
"Almost Home"
"Your Move"

Films Provided by: University of California Extension Media Center

Friday, November 14, 1986

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Elaine Dickson, California State University, Sacramento

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Donna R. Iams, University of Arizona. . . 24

"An Analysis of Perceived Economic and Psycho-Social Well-Being of Rural Nevada Residents With and Without Investment Income"
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Molly Longstreth, University of Arizona . 33

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Speaker: Laurie Shields, Older Women's League

12:15 p.m. LUNCHEON

WRHMFEE Business Meeting

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Invitation to Canada 1987: Ruth Berry, University of Manitoba
Phyllis Johnson, University of British Columbia

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Authors: Jean M. Lown, Utah State University
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Recipient: Nancilynne Cumming, University of Nevada, Reno. 77

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Presenter: Arlene Holyoak, Oregon State University

"Microcomputer Applications in Cooperative Extension"
Presenter: Jeanne Hogarth, Cornell University

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COMPARABLE WORTH: PAY EQUITY OR ROAD TO RUIN?

Marianne A. Ferber[1], University of Illinois at Urbana, Champaign

Abstract

Comparable worth or pay equity has received a great deal of popular attention, but much of the discussion has tended to generate heat rather than light. Too many have seen it as the only way to achieve equitable pay for women, while others fervently believe it will destroy the market economy and hurt everyone, including workers of both sexes. The truth is somewhere in between, though not necessarily squarely in the middle.

The issue is a very complex one and deserves careful examination. Toward this purpose we begin by presenting some facts which help to explain why this is an important matter and then go on to a critical review of the main arguments for and against this approach to improving the economic position of women.

The Record Since 1955

Over the last 30 years, while female labor force participation has been rising steadily from about 35 percent to almost 55 percent, the ratio of annual earnings of women to men, both working year-round, full-time, changed hardly at all, having been about 64 percent in 1955 and in 1984. During the latter part of this period the index of occupational segregation, representing the percentage of workers of one sex who would have to change jobs in order to duplicate the occupational distribution of workers of the other sex, has declined, but at a rate so slow that it would, at that rate, take another 100 years to achieve a fully integrated work force.[2] These facts hardly provide reasons for complacency about the progress that has been made, but rather provide impetus to search for alternative ways to improve the economic status of women.

There is, however, another side to the story. This has been emphasized by O'Neill (1985) and Smith and Ward (1984). The ratio of women's to men's annual earnings reached a low of 59 percent in 1977 and has been rising ever since, albeit slowly. The ratio of weekly earnings, which is available through 1985, has been rising on average by one percentage point per year since 1978. Further, the pay ratio has increased most and occupational segregation has declined most among younger workers, suggesting that progress is likely to accelerate as younger cohorts replace older ones.

Nor should it be overlooked that a substantial portion, possibly as much as half of the pay gap, is explained by women's lower qualifications compared to men. They tend to have fewer years of work experience and less tenure with their present employers. Men also generally have more training, work longer hours, are more willing to move to further their careers, etc. When these differences in potentially productivity-related characteristics, generally called human capital[3], are taken into account, the male-female differential may be reduced to as little as 20 percent[4].

This more optimistic interpretation nonetheless suggests that women earn about one-fifth less than equally qualified men and that the gap is larger among older workers. The analysis also overlooks that fact that the lower rewards themselves provide less incentive for women to accumulate human capital. For one, they reinforce the traditional division of labor in the family. The husband, who has the larger income, is the chief wage earner whose career takes precedence over that of the wife, who continues to be constrained by household responsibilities. Therefore, the importance of the remaining earnings gap cannot be disregarded. Most of it, by general agreement, can be accounted for by the differences in occupational distribution. The unresolved question is to what extent women choose female occupations because they have different preferences and to what extent they are kept out of male occupations by discrimination.

Adherents of the view that workers make voluntary choices essentially argue that women do not expect permanent attachment to the labor force. Hence they avoid occupations which involve a great deal of investment in human capital, and offer low beginning wages, steep earnings profiles, and heavy penalties for interruptions (Polacheck, 1979, 1981). While there can be little doubt that these considerations play a

---

[1] Professor of Economics. This is to acknowledge that some of the material in this paper is similar to that presented in an article in the Journal of Economic Education (forthcoming).

[2] This conclusion is based on data presented by Beller (1984). It disregards the possibility that some of the occupations that have become integrated by the entry of women may be reaching the "tipping" point, and become largely female (Baran and Teegarden, forthcoming; Strober and Arnold, 1985). This has happened in such occupations as teaching, waiting on tables, and secretarial work. It should also be noted that the measure used by Beller focuses on census occupational categories. There are substantial differences in the specific jobs men and women have within such classifications. There are often female subspecialties. There is "hierarchical" segregation, men generally having positions with more power and more autonomy. Last, but not least, there is considerable separation of male and female workers by industry, and even by firm (Bielby and Baron, 1984; Blau, 1977).

[3] Persons use time and money to increase their own productivity, just as businesses invest in physical capital. Hence the term "human capital."

[4] See, for instance, the summary of studies in Treiman and Hartmann (1981), pp. 17-24.

part, they by no means succeed in explaining the existing degree of occupational segregation (England, 1982), and this interpretation, once again, ignores the feedback effect from poorer opportunities to a life style involving career interruptions.

In view of such mixed signals, it is not surprising that some see the cup as half full; others see it as half empty. Many of those who have been dissatisfied with the slow and uncertain progress have turned to equal pay for work of comparable worth as a possible solution.

Current Status of Comparable Worth

There are substantial uncertainties about the legal status of comparable worth at the federal level. Given the growing conservatism of the courts, they are not likely to be resolved favorably in the foreseeable future. This does not mean, however, that the outlook for this approach is necessarily dim. More than half the states have adopted relevant legislation, and some of the others, as well as many local governments, are conducting studies with an eye to possibly doing so. Equally important, unions have begun to introduce pay equity in some bargaining agreements; and the AFL-CIO, as well as at least half a dozen unions, has endorsed the principle (BNA, 1984). Even businesses have been examining, and in some cases adjusting, their compensation systems in response to similar concerns (Report by Hewitt Associates, 1981).

Equally troublesome as the questions related to the legal status of "comparable worth" are those related to its measurement. Opponents contend that only the free market can determine rational wages necessary for the efficient operation of an economy. Of course, their argument is based on the assumption that there exists a reasonable approximation of a perfectly competitive market. In reality there are labor unions, large firms with market power, and employers who make decisions about applicants in terms of their perceptions rather than on the basis of firm knowledge of the worker's qualifications. In large establishments there are also internal labor markets, where workers are generally promoted from within, and job evaluations are frequently used to determine pay rates--as is done in order to implement comparable worth. Hence the case against interfering with market prices is hardly overwhelming.

In principle, evaluation schemes consist of two steps. First, jobs are described and assigned points for each of a variety of "compensable" factors, including required education and training, control over resources, degree of risk, and so forth. Second, a value is set for each of these characteristics. Both steps tend to be subjective, and the latter particularly is controversial. One way to avoid the need of normative judgments is to use regressions with wages in various male jobs as the dependent variables, in order to find how the market values the different job characteristics. This approach has been criticized because it will reproduce market biases; but it will at least ensure consistency, so that female jobs are assigned the same value as comparable male jobs. Its great virtue is that it is not subject to the criticism of valuation merely indicating the tastes and preferences of the evaluator rather than market supply and demand.

Economic Issues

If there was agreement that women's wages were too low and there was agreement also on how to implement comparable worth, there would still be the question of whether its costs are likely to be too high as compared to its benefits.

There is, first, the matter of efficiency. If the market operated so that all workers were rewarded according to the value of their contribution, interference would be an undesirable distortion. As already suggested, however, there are many imperfections, possibly including institutional discrimination based on deeply, historically embedded devaluation of all things associated with women (Hartmann, 1976; Strober, 1984). Therefore, there actually is the possibility that appropriate interference may improve the operation of the market (Bergmann, 1985).

Second, if comparable worth resulted in higher wages for women, this would bring about higher prices in the private sector and higher expenditures in the government sector. This impact could be mitigated if the increase was gradual, and could be avoided entirely if the gap was closed by merely reallocating raises for an appropriate period of time.

A third concern is that there may be unfavorable effects on workers. If women's wages went up, fewer might be employed, so that some would gain; but others would lose their jobs. Estimates of the probable size of this effect vary considerably, but the evidence from countries that experienced a rapid rise in women's earnings is that at most there was a decline in the rate of increase in women's employment (Mincer, 1985). This may be partly because demand for workers in many female occupations is not very responsive to changes in wages, partly because young women would be likely to continue to move out of traditional occupations in spite of the higher wages if they see that there are not many jobs available, and partly because women's higher wages would tend to increase demand for women workers, particularly in sectors producing goods and services that are substitutes for work previously done in the household.

More realistic is the argument that earnings in male occupations will decline relative to those in female occupations; and therefore many men (and their non-employed wives) will feel that they lost out, even if the process is gradual and their real wages have not declined. Skilled craftsmen who have been earning more than nurses and teachers will feel deprived when that is no longer the case. Lawyers and professors may be disgruntled because they earn only twice as much as their secretaries, instead of three or four times as much. Nor will these men necessarily feel better if they are married to women who now earn more, for some may feel their position in the family to be threatened. The real problem

here is that there is no way to bring about greater equality without the previously superior group losing relative status.

The last objection to comparable worth is quite different from those considered so far. Rather than suggesting that the adoption of comparable worth would seriously disrupt the economy, some critics point out that it is not likely to have a very large impact. This is especially true as long as comparable worth applies only within individual establishments, and not between them, and if male characteristics continue to be valued highly, as is likely to be the case. A number of careful studies (e.g., Johnson and Solon, 1984; Rosenbaum, 1985) lend credence to this view. But this is not likely to deter doctrinaire advocates of the free market from opposing comparable worth as a matter of principle. As for pragmatists, more concerned about fairness than minimizing interference with the market system, they are likely to take the view that even a small step in the right direction is better than standing still.

Conclusions

We have seen that the male-female earnings gap has finally started to decline, especially among young people. This is no doubt related to the decline in occupational segregation, as well as women's greater labor force attachment and their tendency to accumulate more human capital. Many experts believe that enforcement of equal opportunity legislation has also been helpful. Nonetheless, progress has been very slow, especially among older women who are particularly heavily concentrated in female occupations. Instituting comparable worth, not instead of but in addition to the other changes, should help to speed up this process and benefit women workers of all ages. It may, incidentially, also forestall a developing crisis in offices, hospitals, and schools which are increasingly finding that bright, ambitious young women, like their male counterparts, are no longer willing to take the low-pay, dead-end jobs of secretaries, nurses, and school teachers.

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COMPARABLE WORTH EQUALS EQUITY

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The average female worker earns approximately $ .60 for every $1 earned by the average man.[2] This equals a 40% differential in wages between male and female workers. Some contend, as Ms. Ferber states, that about one-half this differential can be accounted for by seemingly neutral factors such as experience and training; industry; the dual burden of work and family responsibilities and work expectations. Others argue that these so-called neutral factors are related directly to gender and are, in general, a negative product of our society's attitude toward and treatment of women. I tend to agree with the latter position. However, let us for the sake of argument agree that these factors should not be considered. We are left with a 20% pay differential which appears to have no rational basis whatsoever. This wage gap, we can agree, clearly exists as a result of a historical pattern of sex-based discrimination against women in the workforce.

There are three distinct types of discriminatory practices which have contributed to the wage gap.

First, women have been denied equal pay for equal (meaning the same) work. Prior to the enactment of the Equal Pay Act of 1963, women could be paid less than men doing the exact same work. In fact many employers did maintain a separate wage scale for female workers. Most overt violations have been remedied by the Equal Pay Act, which prohibits employers from establishing different rates of pay for women doing the same or substantially the same work as men. Since enforcement of this Act has been fairly effective this particular type of discrimination, at least in its most overt form, does not impact greatly on the wage gap.

Women have historically been denied access to higher paying jobs because of the gender segregation of the workplace. In 1981 35% of all women workers had clerical jobs and 80% of all clerical workers were women.[3] As a result of affirmative action legislation and court actions some women are moving into non-traditional (and higher paying) employment. The movement of women into higher paying craft jobs is slow. Women occupaied just 6.3% of craft jobs in 1981.[4]

The discriminatory practice which accounts for the lion's share of the wage gap is that women are denied equal pay for work of comparable value. This idea of comparable worth seems difficult to grasp, it has been ridiculed by some and dismissed as not economically feasible by others. The same arguments that are made against the implementation of comparable worth were made against the concept of equal pay. Indeed, was it not considered presumptuous for women in the 1930s and '40s to demand the same wages as men? Was there not an economic impact on those employes who were forced by law in 1963 to raise the wages of women to match those of men doing the same work? (The law prohibited employers from lowering male wages in order to attain equal pay.) The arguments for fairness and equity seem even more compelling now that such a high percentage of women are in the workforce because of economic necessity. Yet many employers have difficulty recognizing the concept as valid.

The facts presented in one of the first successful comparable worth cases clarify the concept substantially. The case was brought against Westinghouse by a union, the International Union of Electrical Workers.

Westinghouse had established in 1939, a rate structure using a point evaluation system. The factors considered were: a) knowledge and training required; b) specific demands of the job; c) responsibilities involved. All jobs were evaluated using this objective salary setting system. However, the Westinghouse wage administration manual instructed officials to compensate women at a lower rate than men in jobs that were evaluated as equal. The Westinghouse manual stated:

"The rate or range for Labor Grades (for women) do not coincide with the values on the men's scale. Basically then, we have another wage curve or Key Sheet for women below and not parallel with the men's curve."[5]

Even the most critical opponent of comparable worth must see the basic unfairness of this system. Westinghouse objectively evaluated the worth of jobs, then paid women with equivalent knowledge, training, demands and responsibilities less, simply and precisely because they were women.

While the discriminatory practice at Westinghouse is crystal clear, most instances of this type of discrimination are more difficult to substantiate. We are so accustomed to undervaluing the work done by women that we are often not aware of any

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[2]California Comparable Worth Task Force: Report to the Legislature, August 1985.

[3]U.S. Dept. Labor, Office of the Secretary. Women's Bureau, Time of Change: 1983 Handbook on Women Workers, Bulletin 298, 1983, 55, 61.

[4]Ibid, 59.

[5]23 FEPC Cases 590, Bureau of National Affairs, Washington, D.C.

discriminatory intent. While a totally objective job evaluation system may not be a reality, systems which substantially eliminate traditional biases are available.

There is good news and bad news concerning the progress we have made toward achieving pay equity.

On the legal front, the news is not very positive. Except where specific legislation is in effect, the term "comparable worth" seems to have no legal standing, however suits can be brought under Title VII as "sex (and/or race) based wage discrimination." In order to prevail in this type of suit the plaintiff must show that the employer has specific wage policies that have the effect of discriminating, or that the employer intentionally pays women's jobs less than men's. These kinds of lawsuits are very difficult and very expensive.

The issue of comparable worth is also being addressed legislatively and at the collective bargaining table.

Here in San Francisco, voters just approved Proposition H. This new ordinance allows comparable worth to be a factor in setting the salary of city employees. While other cities, counties and states have adopted positions in support of comparable worth, this was the first time it appeared as a ballot issue. The union representing these employees, Service Employees International Union Local 790, has bargained a $30 million dollar fund to be used to remedy inequities. Most labor organizations that represent women, particularly those in the public sector, have adopted a policy of demanding comparable worth adjustments at the bargaining table.

We are a very long way from achieving pay equity and sometimes the path seems hopelessly obstructed. Progress toward this end is being made however, and will continue to be made as long as women in the workforce demand economic fairness and equity.

THE HUMAN CAPITAL IMPLICATIONS OF COMPARABLE WORTH: A COMMENT

Cathleen D. Zick, University of Utah[1]

"Equal pay for jobs of comparable worth." It is a simple statement that most people agree with in principal. Yet, these same people will say that in practice, they believe the costs of instituting a comparable worth policy far outweigh the benefits. I must admit that two months ago when I agreed to be a respondent for Dr. Ferber's paper, I shared this view. As a feminist, I believed in the ideal of equal pay for jobs of comparable worth. However, as an economist, I perceived that the economic costs of having such a policy would far outweigh the economic benefits and thus, it was not in society's best interest to actively advocate for comparable worth. However, after doing more reading and listening to Dr. Ferber's presentation, my thinking has changed. Indeed, my perspective as an economist now coincides with my feminist position. As an economist, I now believe that the economic benefits of implementing a policy of comparable worth would outweigh the economic costs.

Comparable worth opponents frequently argue that such a policy would (1) be inherently arbitrary and cumbersome to administer, and (2) decrease both men's wages and the probability of women's employment (3, 8, 9, 11, 12). With respect to the former objection, I think Dr. Ferber's comments about using regression techniques to avoid making arbitrary value judgements about job characteristics is well taken. With respect to the latter objection, Dr. Ferber has argued that if changes in the wage structure are phased in over time--say three-to-four years--then the negative effects on women's employment and men's wages should be quite small. Others echo this position. For example, Bergman (2), and Aaron and Lougy (1) point to the experiences of Australia, where during the 1970's, minimum-pay boards took actions that gradually raised women's wages by 30 percent. Analyses of the "after-shocks" of this change in their wage structure found that the disemployment effects among both women and men were not significant (6). In contrast, there is some evidence that men's wages are likely to fall if a policy of comparable worth is instituted--but not in the absolute sense. Indeed, under the worst case scenario, what would probably happen is that during the transition, men would experience a slower positive rate of growth in their wages than they have experienced historically (1,2).

If the economic costs to the labor force of implementing a comparable worth policy are relatively small, are the economic benefits to workers also likely to be tiny? Dr. Ferber has noted that comparable worth policies are most likely to raise the wages of older women who are employed in traditionally "female" occupations (e.g., teachers, secretaries, nurses). She also says that comparable worth could benefit society by altering the amount and type of human capital investment that women make in the future. Given that this year's conference them is "Investing in Human Capital," I think that the question of how comparable worth might affect women's future human capital investment is very important and warrants some further discussion.

The current wage structure encourages more market-oriented human capital investment on the part of males than females. That is, while men's relatively high wages promote further investment on the part of males, women's relatively low wages discourage their investment in market-oriented skills. And because women possess lower levels of market-oriented human capital than do males (e.g., fewer years of work experience), they are offered lower wages by employers. This in turn leads women to make lower commitments to market work than are made by their male counterparts. Indeed, as Dr. Ferber has pointed out, there is something of a vicious "no-win" cycle in place. While a policy of equal pay for jobs of comparable worth might not completely reverse this cycle, it could certainly begin to change the momentum. By raising women's wages, a policy of comparable worth would encourage greater market-oriented human capital investment on the part of women, and this would lead employers to offer higher wages to women, which in turn, further encourages market-oriented human capital investment on the part of women.

In addition, an increase in the relative wage benefits associated with market-oriented human capital investment is likely to have positive "spill-over" effects on men's and women's time allocation to household work and their subsequent investment in home-oriented human capital. As most of you know, despite the popular notions about couples increasingly sharing household work, data from recent time-use studies show that women still do the vast majority of the work at home. Analyses of the 1981-82 "Time Use in Economic and Social Accounts" data from the University of Michigan show that the average married male spends 14.25 hours per week in housework. In contrast, the figure for the average married female is 34.85 hours per week (7, p. 148). Given that sex-based wage discrimination in the marketplace distorts the relative opportunity costs of men's and women's time (i.e., regardless of their relative marginal productivity in the home, the current market wage structure generally makes it more costly for men to do household work than it is for women), such time allocation patterns are not surprising. If a policy of comparable worth raised the market wages of women relative to those of men, then couples would see the opportunity costs of the woman's home work time rise. At the margin then, this increase should lead couples to re-allocate some household work away from the woman toward (1) the man, and/or (2) purchased market substitutes (depending on the marginal productivity of each). In the same spirit, such a change should encourage greater investment in home-oriented human capital on the part of males in the future.

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Finally, and in my mind perhaps most importantly, equal pay for jobs of comparable worth has the potential to improve the current economic well-being of a great many households in this country--and this in turn could increase the level of human capital investment that parents will make in their children. In 1980, about 50 percent of all families in the United States were headed by married couples where both spouses worked outside of the home. In addition, another 14 percent of all families were headed by single women (10). A policy of equal pay for jobs of comparable worth would improve the economic positions of these households by increasing the earnings of the women who live in these families. In particular, comparable worth has the potential to dramatically improve the financial position of those families that are headed by single women. In 1984, 34.5 percent of families headed by single women lived in poverty (4, p. 24). Furthermore, analyses done using logitudinal data show that Americans living in female-headed households have a very high probability of being chronically poor.[2] If a comparable worth policy was successful in raising the wages of women who are in traditionally low-paying female occupations, it could do a great deal to improve the financial position of poor families--which in turn, would allow them to invest more in their children's human capital--thus, hopefully improving the economic status of future generations.

In sum, comparable worth has the potential to spark positive changes in human capital investment in our society. However, despite these positive benefits, comparable worth would not be a costless public policy. In particular, the costs associated with identifying and implementing the unbiased job evaluation schemes that would be needed, along with the program's monitoring costs, would surely be quite high. So, there are probable costs and probable benefits associated with comparable worth. Does the benefit side of this tally sheet outweigh the cost side? It is an empirical question. However, I believe that Dr. Ferber's work along with the work of others such as Barbara Bergman, Henry Aaron, and Cameran Lougy, argue quite strongly that on balance, the net benefits of comparable worth are likely to be positive.

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[2] Analyzing data from the Panel Study of Income Dynamics, Greg Duncan found that between 1968 and 1978, 61% of all individuals who were chronically poor (i.e., poor in eight or more of the ten years they were followed), lived in female-headed households. In contrast, only 19% of the entire population lived in female-headed households during that time period (5, p. 49).

MEASURING FINANCIAL SATISFACTION

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Abstract

A set of three items is found to explain approximately 65 percent of the variance in financial satisfaction. In assessing their financial situation, respondents appear to weight their consumption level and their ability to meet emergency expenses about equally, but to weight savings more heavily. Possible improvements to the three items are discussed.

Introduction

Researchers investigating family financial management behavior have frequently used satisfaction ratings as indicators of the effectiveness of the management processes (4, 6, 11, 16, 21). There seems to be a consensus in the literature that satisfaction levels are accurate reflections of the difference between the financial situation the household wants to be in, and the situation in which it actually finds itself (23). However, there does not seem to be a consensus on the most appropriate way to measure satisfaction in the financial domain. Horsey (12) has suggested that just as life satisfaction is dependent on satisfaction in the various domains of life (e.g. family, work, leisure), satisfaction in each of the domains may well be dependent on satisfaction with various subdomains, which he calls "elements." In some of the research into financial management practices, satisfaction has been measured using but one element (e.g. [16]). However, it is more common to use several elements (e.g. [6] and [11]). Indeed, the evidence suggests that this may be the wiser course of action, since satisfaction levels tend to vary from element to element. Satisfaction with consumption level has tended to be relatively high (2, 5, 14, 22). Respondents reported somewhat lower levels of satisfaction with wealth and satisfaction with the ability to meet emergency expenses (4, 7, 11). The lowest levels of satisfaction have been reported for satisfaction with savings (14, 15, 21). It would thus appear that a comprehensive measure of financial satisfaction should incorporate more than one element, but how many elements are necessary to accurately reflect domain satisfaction, and which elements? The work reported below represents an attempt to answer these questions. More specifically, the purpose of this research was to determine how well a combination of three elements explains variation in a global domain measure of financial satisfaction. It is hoped that the results of this study will prove useful to other researchers interested in measuring financial satisfaction and provide educators with additional insights into the way people view their financial situation.

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Data and Methods

Data were collected in the spring of 1984 by means of a mail questionnaire sent to a sample of households in a midwestern state. A two-stage cluster sample was employed. The first stage of the sampling procedure involved drawing seven counties at random from those counties which did not include a Standard Metropolitan Statistical Area (SMSA) within their borders. The second stage involved selecting households at random from within the seven counties. Telephone listings comprised the sampling frame. Following the initial letter requesting participation, three attempts were made to contact non-respondents, in accordance with the procedures recommended by Dillman (9). From 1200 households, 672 usable responses were received. When ineligible households (i.e. those whose members had moved away from the state) were subtracted (n=96), the response rate was 61 percent.

Demographic characteristics of the sample are presented in Table 1. Respondents ranged in age from 18 to 94 years ($\bar{x}$ = 48.85; s.d.= 17.70). Almost half had received some formal education beyond high school; the mean education level was 2 years of post-secondary study. The mean household income before taxes fell between $20,000 and $25,000. The mean household size was 2.7 persons; 45 percent of the sample lived in households of one or two individuals. Almost three-fourths of the respondents were male; and 80 percent of the respondents were married.

Comparisons of the respondents to the population of the seven counties in 1980 indicates that people 18 to 25 years old are under-represented in the sample and people between 45 and 64 are over-represented in the sample.

TABLE 1. Demographic Characteristics of the Sample

Mean age of respondents	48.85 years
Mean education level	2 years post-secondary
Mean income level (midpoint of the mean category)	$22,500
Mean household size	2.7 persons
Percent male	72
Percent married	80

Financial Satisfaction Measures

The survey included four questions related to financial satisfaction: three which might be

considered elements, and an overall domain satisfaction measure. These questions are listed in Table 2. The first item (How satisfied are you with your standard of living...) was designed to measure satisfaction with consumption level, where "consumption level" is defined as it was by Davis (7) to mean "a sort of aggregate of the food, fuel, and other nondurable goods used up, the services of houses, automobiles, clothing, and other durable and semidurable goods utilized, and the services of human beings used, by a given individual or group, in a given period or time." The second item was intended to measure satisfaction with financial security. The third item was intended to measure satisfaction with wealth, and hence included both savings and investments together. The fourth question was the overall domain satisfaction measure. The response categories represented a modified version of Andrews' and Withey's (1976) "Delighted-Terrible Scale," where a "delighted" was coded as a "5", "pleased" as a "4", "mixed" as a "3", "dissatisfied" as a "2", and "terrible" as a "1".

TABLE 2. Financial Satisfaction Measures

Question	Mean	S.D.
Element #1: Satisfaction with Consumption Level:		
How do you feel about your household's present standard of living: that is, the goods and services you use, like your food, clothing, housing, car, and so on?	3.57	.77
Element #2: Satisfaction with Emergency Resources:		
How do you feel about how well prepared you are to meet large emergency expenses?	2.79	1.07
Element #3: Satisfaction with wealth:		
How do you feel about the amount of money your household has been able to save and invest so far?	2.80	1.12
Domain satisfaction measure:		
Taking all the things mentioned above into account, how do you feel about your financial situation in general:	3.14	.96

NOTE: Possible responses ranged from "1" (Terrible) through "5" (Delighted).

The distribution of responses to the four questions was consistent with the distribution of responses to identical or similar questions in other surveys (see, for example [11] and [21]. Approximately 63 percent of the respondents reported that they were "pleased" or "delighted" with their consumption level. Almost 40 percent reported that they felt "dissatisfied" or "terrible" about their ability to meet large emergency expenses; and even more (44 percent) expressed displeasure with their savings and investments.

The distribution of responses on the third item (satisfaction with savings and investments) is of some interest, because it suggests that this question may have been interpreted by the respondents differently than it was meant. For purposes of comparison, the distribution of responses on similar items in other studies is shown in Table 3. The distribution for the

TABLE 3. Percentage Distribution of Satisfaction with Savings and Wealth

Question	Percentage
How do you feel about the amount of money your household has been able to save and invest so far?[a]	
Terrible/Dissatisfied	44
Mixed	21
Pleased/Delighted	35
How satisfied are you with the amount you currently have in savings?[b]	
Extremely dissatisfied/Dissatisfied	59
Neutral	6
Satisfied/Extremely satisfied	35
How satisfied are you with your current savings?[c]	
Extremely dissatisfied to somewhat dissatisfied	61
Mixed	9
Somewhat satisfied to extremely satisfied	30
How satisfied are you with the current level of your assets?[b]	
Extremely dissatisfied/Dissatisfied	14
Neutral	20
Satisfied/Extremely satisfied	65
How satisfied or dissatisfied are you with the amount of your family's net worth?[c]	
Extremely dissatisfied to somewhat dissatisfied	39
Mixed	14
Somewhat satisfied to extremely satisfied	48

SOURCES: [a]Davis, 1986
[b]Hira, 1986
[c]Davis, 1981

"savings and investment" item parallels more closely the distribution for "savings" questions than it does the distribution for "asset" or "net worth" questions. This leads one to suspect that when answering the "savings and

investment" question, respondents were considering only what they considered as their savings, not their total wealth. There is some evidence (13, 20) that people interpret "savings" to mean only liquid reserves, so in fact this question may have measured satisfaction with emergency reserve funds, rather than satisfaction with total wealth.

Multivariate Analyses

Since the variables were measured at the ordinal level, two alternative statistical techniques were considered. The first required treating the data as if they were interval, and using multivariate tools appropriate for such data. The second involved using loglinear tools designed for the analysis of cross-classifications. Each approach had its advantages and disadvantages. Interval-level techniques such as analysis of variance and multivariate regression are more familiar to many researchers. Furthermore, when an ordinally measured variable has several ranks, the results obtained by using such techniques as regression analysis are very similar to those obtained using techniques designed specifically for ordinal data (19). Even when the dependent variable is dichotomous, there is evidence that the results obtained from regression analysis and those obtained from logit analysis differ very little (10).

The application of regression techniques where the dependent variable is dichotomous or a set of unordered categories has been criticized (1). Application of loglinear techniques, however, entails its own risks, especially, as in this study, where the cross-classification yields large numbers of cells containing zeroes. In such cases, collapsing categories is sometimes advised (18) but this must be done with caution, lest the result obscure the relationships among the variables (19).

Given the advantages and disadvantages of each technique, and the fact that the dependent variable contained enough categories to examine the underlying structure of the data (19) the data were treated as if they were interval. Analysis of variance (SPSS-X ANOVA) was used to search for evidence of non-linearity and interaction effects. Regression analysis (SPSS-X REGRESSION) was used to determine the relative contributions of satisfaction in each domain to the global measures, and to assess the total contribution of the domain variables to overall financial satisfaction.

Results

The intercorrelations among the four financial satisfaction measures are presented in Table 4. All the elements were related to each other and to the domain measure. Satisfaction with savings promised to be a particularly powerful predictor; it accounted for over half of the variation in both satisfaction with emergency resources and overall financial satisfaction.

TABLE 4. Intercorrelations among financial satisfaction measures

	Satisfaction with		
	Overall Situation	Consumption	Emergency Resources
Satisfaction with			
Overall Situation			
Consumption	.589**		
Emergency Resources	.696**	.592**	
Savings	.734**	.472**	.723**

**P<.001

Bivariate analyses of variances indicated a possible deviation from linearity in the relationship between the domain measure and satisfaction with consumption level (P<.054). However, the difference between the coefficient of determination (R^2) and the eta^2 was quite small (.008). In the multivariate analysis of variance, with the domain item as the dependent variable and the element items as the independent variables, all the main effects were significant (P<.0005). In addition, two interaction effects approached significance: that between consumption satisfaction and satisfaction with emergency resources and satisfaction with savings and satisfaction with emergency resources (P<.06).

Two stepwise regression models were fit to the data. The first included satisfaction with consumption level, the square of satisfaction with consumption level, satisfaction with savings, satisfaction with emergency resources, the two interaction terms (consumption satisfaction by satisfaction with emergency resources, and satisfaction with emergency resources by satisfaction with savings). The tolerance level was left at the default value of .01. The interaction terms were eliminated from the model once the main effects were entered. The square of satisfaction with consumption level proved to be statistically significant (P<.001) but it added less than one percent to the proportion of variance (R^2) explained by the model. Accordingly, a second linear additive model was fitted with a more stringent tolerance criterion (.20) to reduce the adverse effects of multicollinearity among the independent variables (18). The results are presented in Table 5. Based on the relative size of the beta coefficients, it appears that assessing their financial position, people weight their consumption level and their emergency resources about equally, and savings rather more heavily. The linear, additive model explained approximately two-thirds of the variation in overall financial satisfaction.

TABLE 5. Regression of Overall Financial Satisfaction on Satisfaction with Consumption, Emergency Resources, and Savings

	Regression Coefficient	Standardized Coefficient	Tolerance
Independent Variable			
Satisfaction with Savings	.365	.426**	.461
Satisfaction with Consumption	.326	.259**	.723
Satisfaction with Emergency Resources	.235	.259**	.444
Constant	.295		
Adjusted R^2.	.642**		
N of cases	658		

**P<.001

Discussion

The results presented above suggest that it is possible to capture a substantial portion of the variance in satisfaction in the financial domain with a rather small set of elements. Would a different set of three elements be more efficient in predicting overall financial satisfaction? As Andrews and Withey (1) note, the upper limit on achieved explanatory power with measures such as these will be less than 100 percent, perhaps considerably less. On the other hand, due to the probable misinterpretation of the "savings and investment" question by the respondents, this particular set of items probably does not reflect satisfaction with wealth aside from liquid funds. Perhaps adding a fourth item, related to long term investment objectives, would result in a set of elements that would capture all of the domain satisfaction that can be captured with measures such as these.

The fact that these respondents seemed to weigh satisfaction with savings more heavily than either satisfaction with consumption level or satisfaction with other emergency resources may warrant some reflection on the part of financial educators. Does it indicate that savings and investment alternatives are an area that should receive greater emphasis in programs of financial education, especially given that such alternatives have been proliferating in a deregulated market? Does it, as Rudd and Dunsing (20) suggest, indicate that people fail to consider illiquid and nondiscretionary forms of savings when they consider their financial situation, and thus may feel worse off than they may be? If so, then perhaps ways of estimating one's total wealth situation (e.g. net worth statements) deserve greater emphasis in financial education.

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MEASURING FINANCIAL SATISFACTION: DISCUSSION

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Davis has chosen a topic which is central to much of the research in family financial management. The frequency with which this construct appears in research indicates its importance. Yet, despite many attempts to measure the domain of financial satisfaction, there is no widely accepted instrument that has been demonstrated to produce a valid and reliable measurement of this construct. Too often entire research projects focus on this concept without sufficient attention to the measurement instrument.

Typically the methods used by researchers to obtain an estimate of financial satisfaction are similar but, too often each researcher develops a slightly different series of questions (or a single measure) or a variation on a measurement used in previous research. Thus, the results lack consistency and comparability. The use of questionable measures may invalidate the conclusions of the entire study.

One of the first decisions in measuring financial satisfaction is whether to measure satisfaction with financial management practices or satisfaction with the results (current level of living or consumption). Next, the domain to be measured needs to be defined. A definition of financial satisfaction would guide the choice of elements and facilitate assessment of the validity of the scores on the instrument. Davis defined the conceptual domain by default with the three elements of consumption level, ability to meet emergency expenses and savings. Further development of this paper should address this need for a definition.

The domain of financial satisfaction is related to income adequacy which has been measured in numerous studies. A review of research should include an examination of measures of income adequacy in relation to financial satisfaction. Ackerman and Paolucci (1)advanced our understanding of this relationship in a study which concluded that subjective measures of income adequacy account for more variance in satisfaction with quality of life measures than do objective measures. Winter, Bivens and Morris (5) concluded that

> satisfaction with family finances clearly was not a simple, straightforward function of the family's situation as perceived and evaluated. It is likely there were subtle psychological patterns in, for example, tolerance for poverty that were being indexed by such variables as age (p. 411).

Another finding of this study was that recent change in family finances significantly affected satisfaction. Moen (3) makes a case for using a multifaceted approach to the issue of measuring financial status. Her suggestions for the construction of family indicators are applicable to measuring financial satisfaction as well.

> All indicators, whether at an individual level, should take into account the following requirements: (1) the need for multiple indicators rather than an aggregate index, (2) the need for causal modeling rather than descriptive or correlational data, and (3) the need for adequate conceptualization (p. 11).

One of the strong features of the Davis paper is the recognition that financial satisfaction is multidimensional and therefore should be measured with more than one element. But that decision raises the question of whether the responses should be equally weighed or whether certain aspects of financial satisfaction should be weighed more heavily. Despite the advantage of using multiple items, the elements used by Davis may be too limited in scope for measuring the complex concept of financial satisfaction. More than three elements may be necessary to adequately measure financial satisfaction; the elements chosen should reflect the definition.

Element One: Satisfaction with Consumption Level. Why not use the term "level of living" rather than "standard of living"? Standards represent what we hope to achieve while level indicates present consumption.

Element Two: Satisfaction with Emergency Resources. This question "was intended to measure satisfaction with financial security" but asks instead about meeting large emergency expenses. While financial security is an appropriate element, it needs to be defined in a broader sense to encompass more than emergency savings. It implies the ability to earn a living despite the loss of the current job. With many corporations cutting personnel due to mergers, acquisitions and the need to be more competitive in the world market, employment security (or the ability to get another job) may be an important component of financial security. Memories of the 1981-82 recession and the lack of recovery of many of the major sources of secure employment have made this element even more important than at any time since the Great Depression. Consider adding a question on employment security.

Element Three: Satisfaction with wealth. A problem in measuring wealth, as compared to amount of liquid savings, is that few people compile a net worth statement. Satisfaction with "wealth" is not the same as savings and investments. Individuals with an employment history of a decade or more may overlook many financial assets such as pensions, IRAs, annuities, etc., in assessing security. In addition, two income couples may own considerable retirement assets of which each spouse is not fully aware. Although respondents may not perceive the difference, two income families are more financially secure than single income families in the event of job loss. Perhaps a ques-

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tion on number of earners could provide additional insight into this concept.

The overall satisfaction measure is an important component. It might be worded as: Taking all aspects of your financial situation into consideration. . .

Response categories

Consider the use of different response categories. Is the "terrible-delighted" scale as appropriate as a "satisfaction-dissatisfaction" scale? Despite a keen interest in financial affairs I would have a hard responding "delighted" to any of the questions, whereas I might be very satisfied with my situation. Although I might feel very comfortable with my preparation for meeting large emergency expenses (at least in part due to employer sponsored insurance coverage and retirement benefits) I cannot get very excited about the prospect or the preparation. Although this standard scale is used quite extensively in research I wonder if it is narrowing the variability of responses. Consider using a satisfaction scale ranging from "very dissatisfied" to "very satisfied." To test which response scale is most appropriate, a study could be designed using the same questions or statements with half the sample answering on the "delighted-terrible" scale and the other half responding on a "satisfaction-dissatisfaction" scale. Another alternative is the use of a self anchoring measure such as the ladder scale used by Winter, Bivens, and Morris (5). Both this study and the Ackerman and Paolucci (1) study used a self-anchoring scale with a picture of a ladder. The top rung (10) represents "best situation for his or her family and bottom (1) represented the worst situation."

Sample Selection and Data Analysis

The following questions regarding data collection should be considered. Why exclude SMSA in selecting counties? Although convenient, the use of telephone listings limits generalizability of the findings because phone listings exclude poorer, younger, and more transient residents. What percentage of the population in this area of the state has a phone? In rural areas there may be fewer unlisted numbers than in metropolitan areas; thus use of phone listings is not a problem. How does the sample reflect state or national population?

Address the issue of whether to solicit answers from only one spouse or the couple. Wilhelm and Iams provide some direction (4). Three-quarters of respondents were male. Any explanation? How was the letter addressed? Was any attempt made to target the family financial officer or to solicit responses from females in half the households and males in the other half using methods recommended by Dillman (2)? Was there any difference in responses between males and females? This could be the subject of a follow-up paper.

High intercorrelations between savings and overall satisfaction as well as savings and emergencies resources may indicate multicollinearity. Since satisfaction with savings accounted for almost half of the variation in both satisfaction with emergency resources and overall financial satisfaction, perhaps these are too highly intercorrelated and other terms need to be used.

Recommendations: Organize a group of researchers to develop and pretest an instrument. Once an instrument is pretested and revised, the ideal situation would be to collect data from a representative national sample. A less costly, more feasible alternative would be to cooperate with researchers in other states and collect data from a representative sample in four or more states with diverse populations.

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CAN TOOLS FOR REGIONAL ECONOMICS BE USED TO ASSESS THE EXPORT OF FAMILY TIME TO THE MARKETPLACE: A THEORETICAL EXPLORATION

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Abstract

This study is aimed at capturing the complexities of time allocation and trade-off decisions of families. To help guide this research, the authors have relied on the theoretical and methodical developments in the fields of family economics, home management and regional economics. Regional economics attempts to measure the economic development within a region that is necessary for that region's survival as well as for the export capabilities of that region. Putting the regional economic theory into household production terms, survival or minimum requirements for a specific family's functioning would reflect that quantity of household production which must be done by a family member. Three techniques; 1) assumption, 2) location quotient, and 3) minimum requirement, were utilized in this research. Preliminary analysis suggests that the methodology presented in this paper can work, keeping in mind the limitations set forth by the field of regional economics. Depending upon the method used, time in household production activity classified as non-exchangeable ranged from two hours per week (minimum requirement technique) to 35 hours per week (location quotient).

Introduction

With continued demand for adult hours to be spent in marketplace activity coupled with the resistance to decrease current levels of living, families must make choices among various sources of goods and services in order to provide the necessary human services required of families in an industrialized society. As the traditional functions of the family are being assumed, shared or offered by other societal units, families have more options in meeting family demands and performing the necessary functions. However, it is proposed that some portion of the household load is ever present and not likely to be reduced by substitution of marketplace labor or other social units outside the immediate family.

This portion is hypothesized to represent some underlying level of family produced goods and services that are required to simply maintain the unit; a level below which the family structure and stability may be threatened. It might be envisioned as the total output of work which is absolutely required in order to tie the family together in a functioning unit and form the infrastructure upon which the additional interaction can be built.

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Theoretical Framework

In order to provide a better understanding of the demands upon, and human resources available to, families during the different stages of the family life cycle, time use studies have been conducted. There has been a substantial increase in both the quantity and quality of information about time use by family members in household and marketplace activities. Walker and Woods (1976) made a contribution by specifying paid (market) and unpaid (largely household and volunteer) work as a framework in which to view productive activity of all family members over the age of six. However, earlier time studies have not focused on links among the family demands, alternative sources of production, and family cohesiveness. An appropriate framework for accessing these linkages is needed.

Beutler and Owen (1980) stated that home production is by and for household members with the output having "use-value" rather than "exchange-value" and proposed a framework dividing household production into two categories: separable and inseparable. Inseparable home production is comprised of those activities which cannot be delegated or purchased by the family because of "use-value" or intrinsic characteristics of output. Inseparable household production can, therefore, be viewed as employing unique nonreplaceable human time and capital to perform functions which may be impossible to duplicate in the market. Beutler and Owen imply there is some minimum input of human capital required to maintain family functioning.

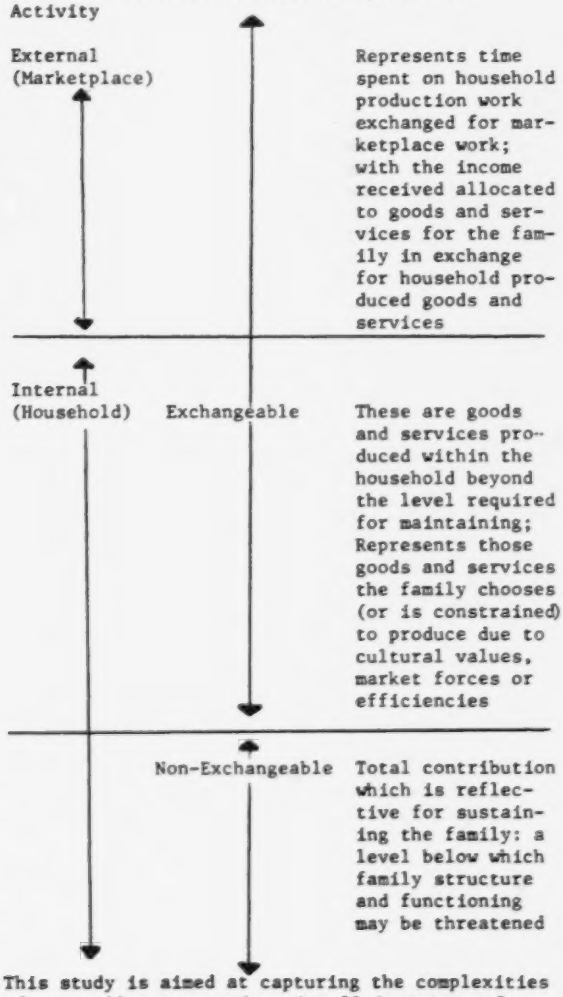
Foa (1971) attempted to view the attributes of transferability, interdependence, and interrelatedness by interpreting interpersonal behavior as an exchange, characterized by profit and loss. The resource exchange framework developed by Foa helps to explain resource decisions made by families by classifying resources into six groupings. These are 1) love, 2) status, 3) information, 4) money, 5) goods and 6) services. Household production, which can be defined as the development of human capital, is the family's investment in the future and resources would need to be allocated to the various activities which are required of families to function.

Proposed Methodologies

Time spent in household production activities is defined by Beutler and Owen as separable and inseparable; primarily because of the qualities associated with specific activities. However, additional factors also influence the location of production. Many families who would choose to purchase certain goods and services may face marketplace constraints, which make marketplace

exchange impossible or unfeasible. These factors might be viewed as constraints in the exchange process and could stem from a) societal norms or acculturation, b) inefficiencies in the substitution process, c) factors specific to the nature of the commodity which requires a specific source, and/or d) unavailability of the commodity in one of the realms. In order to accomodate the constraints of the marketplace in addition to the value orientation of families, the authors propose that internal time be divided exchangeable and non-exchangeable.

FIGURE 1. Family Members' Production of All Goods and Services as Measured by Time Use Activity


External
(Marketplace)
Represents time spent on household production work exchanged for marketplace work; with the income received allocated to goods and services for the family in exchange for household produced goods and services
Internal
(Household)
Exchangeable
These are goods and services produced within the household beyond the level required for maintaining; Represents those goods and services the family chooses (or is constrained) to produce due to cultural values, market forces or efficiencies
Non-Exchangeable
Total contribution which is reflective for sustaining the family: a level below which family structure and functioning may be threatened

This study is aimed at capturing the complexities of time allocation and trade-off decisions of families and focus on the early stages of the family life cycle (i.e., those families having at least one pre-schooler in the household) because of the high levels of demands on families in this stage. To guide this effort, the authors have relied on the theoretical and methodical developments in the fields of family economics, home management and regional economics.

Home economics has utilized the tools of economics to explain many aspects of family economics and management. The proposed methodologies are borrowed directly from the field of regional economics and while these specific tools may be new, the idea is not unique nor novel to the home economics profession.

Regional economics attempts to measure the economic development within a region that is necessary for that region's survival as well as the export capabilities of that region (Tiebout). There is no one definition of a region (Richardson, 1973). The "region" or unit selected for analysis is dependent upon the objectives of the study. Viewing the family as an economic unit is not a novel idea. Putting the regional economic theory into household production terms, survival or minimum requirements for a specific family's functioning would reflect that quantity of household production which would be classified non-exchangeable. Time spent by family members in marketplace production, as well as unpaid work, volunteer activities and any additional household production would be considered actual or potentially exchangeable time.

Although there are several economic impact models and techniques used in regional economics to measure the multiplier effect of an industry or the economic outlook of a community, there are three basic, somewhat overlapping approaches designed to categorize various inputs as export (exchangeable) or survival (non-exchangeable). They are: 1) economic base-type analyses; 2) simple econometric multiplier models; and 3) regional input-output techniques. Due to the nature of the data available, as well as the questions we are attempting to answer, the economic base approach is the most appropriate (Tiebout, 1962).

Economic models vary in the unit of measure used in the analysis, again, depending upon the objectives of the study undertaken. Selecting an appropriate measurement such as number of employed, income generated or in this case, time, is the first step in all base models.

According to one pure theoretical form of this model, all economic activities within a region (household) may be divided into two categories: those which produce goods and services for firms and individuals outside the area of study, and those which produce for firms and individuals within the confines of the region (household). The first category, covering those activities which bring new money into the community, is called export (exchangeable); the second, which serves to recirculate money already in the city, is called non-export, (non-exchangeable).

Emphasis is placed on export activities, since the community is considered to be organized around its export industries. As exchangeable activities are considered "city building" activities, the inference is that an increase in exchangeable activities will result in a growth of total economic activity, while a decrease in these activities will result in a decrease of total economic activity. In its simplest form, the model is as follows:

$$E(t) = E(e) + E(ne) \quad (1)$$

where E(t) = total employment time
E(e) = employment time in the export or exchangeable functions
E(ne) = employment time in the non-export or non-exchangeable functions

The three indirect methods most often employed in the field of regional economics are 1) the assumption approach, 2) the location quotient, and 3) the minimum requirements technique (Tiebout, 1962).

Assumption Approach

The assumption approach to accessing the exchangeable and non-exchangeable relationship is the simplest. An arbitrary assumption is made as to what is export and what is non-exchangeable. The assumption approach relies on earlier studies for the decision criteria as a basis for assigning resources to the appropriate sectors. We propose that two methods are appropriate for assigning household production exchangeable and non-exchangeable time under the assumption method. The first method is to assign a percentage of time for each of the categories of household production as defined by earlier time-use studies. Total family time of families with a full time homemaker and at least one pre-school child will be used as a point of reference for this analysis. The percentages used for this analysis are listed on Table 1. The percentages were based on the authors' judgments. Taken into account were potential marketplace options, efficiency of exchange, and the interrelationships among some of the activities with each other. For example, if a family decreases the amount of food preparation, it would also decrease the amount of shopping, however, if a family decreases the amount of sewing, it might increase the amount of time required for shopping. While one may choose to discount the percentages used by the authors, the approach is still valid. We recommend continued work to arrive at a scientific base for a more accurate set of percentages.

TABLE 1. Percentages of Time spent in Household Production Activities Required by Family Members as Assigned by the Authors.

Activity	Percentage of Exchangeable Time	Percentage of Non-Exchangeable Time
Food Preparation	80	20
Dish Washing	80	20
Shopping	30	70
House Cleaning	80	20
Yard	90	10
Clothing Care	90	10
Sewing	95	5
Physical Care	60	40
Non-Physical Care	50	50
Management	85	15

The second method employs a relative measure which is commonly applied to dollar income to determine minimum level of resources; one-half of the median (Watts, 1980). It is not strictly a minimum but ties the concept of some low level of production to a normative (median) measure of household work.

The greatest advantage of the assumption method is its simplicity. A disadvantage includes the assumption that all families' production patterns are identical and the problem of differentiating such things as the human factor. The error or author bias involved in such assertion can be enormous (Tiebout, 1962; Richardson, 1973).

Location Quotient

Location quotients provide one rather widely used measure of the export industry. This method assumes that the local region of study is similar to the national production of that industry. In the case of families, it would assume that any family spending more time than the national ratio of time spent on each activity to total work time, the difference could be spent elsewhere. If a family were spending less, it would assume that the time spent in that activity was inseperable (non-exchangeable) for that family.

The location quotient method works by the following formula:

$$\frac{X}{\text{total local employment}} = \frac{\text{national employment in industry}}{\text{total national employment}} \quad (2)$$

Solving for X determines the level of activity in that industry for a given community, or alternatively, the amount of time spent in that activity if it had just enough to supply its own needs.

The first criticism of this technique is the assumption of uniformity demand throughout the units of production. To some extent these variations can be taken into account by controlling the number of persons and ages of the children in the analysis. A second frequent criticism deals with the question of efficiency. By using a ratio of time in activity to total work time, some of the family differences of standards and efficiency are eliminated. Another disadvantage in using this method is the use of highly aggregated measures for determining widely different phenomena. All of these criticisms reduce the value of the location quotient method, but should not elminate it entirely. One advantage of this method is that it is an inexpensive way to measure exchangeable time, thus measure the non-exchangeable time as a residual. Moreover, it can be applied to historical data and reveal trends. As long as the limitations of the location quotient are recognized, this method can give at least some estimates, most likely a conservative one, of exchangeable activity or a high one for the non-exchangeable time.

Minimum Requirement

A variation of the location quotient method is the minimum requirement technique. The essential steps involved begin with a consideration of units similar to each other under study. For each unit of production, one calculates the ratio of the total measure to each individual activity,

ranking the ratios for a given industry or activity in decreasing order of magnitude. The pre-assumption is that the smallest percentage is the minimum required by any community to satisfy its own needs. Therefore, all activity above this amount is considered exchangeable. Repeating this process for each activity yields the total exports for the particular unit under study (Tiebout, 1962).

It has been argued that when using large numbers of communities (as many as 100) some may have quirks that are atypical. Therefore, one can count up five communities from the bottom and use that as a benchmark. Of course, there is nothing magic about the five percent level, but it avoids, supposedly, some spurious cases (Miernyk, 1978). The difficulty with this approach is: where does one place the cutoff point? The higher the cutoff point, the greater the so-called minimum levels of non-exchangeable activity. Thus, unless good judgment is used, this approach can be misleading.

To summarize, there are many difficulties inherent to the economic base approach. In general, these are:

1. The classification of each activity as either wholly exchangeable or wholly non-exchangeable,
2. Alternatively, the division of any particular activity into the fraction which is either exchangeable or non-exchangeable,
3. The practical application of the assumption that not only consumption patterns, but also production patterns, are identical when different areas or regions are compared,
4. The problem of differentiating the inter-industry effects from multiplier effects, such as the "human" multiplier.

An economic base study, however, is useful in forecasting community economic levels. It is argued that these methodologies, limited as they are, are transferable to any unit of production, including the family. This study explores these base models to examine their usefulness in determining some underlying level of household production necessary for a family to continue to function as a family. The purpose of this paper is to explore the advantages and disadvantages of the economic regional analyses in determining sustaining levels of household production, measured in terms of time.

Application to Time-Use Data

A sustaining level is explored by using three different techniques to measure non-exchangeable time. The additional time spent by each family in household production will be considered as that time which could have been exchanged, given inclinations and resources to do so. All three methods of analyses were conducted using total family time; separating weekday/Saturday/Sunday and restricting the sample to families having at least one pre-schooler. In order to achieve a true family measure, all family members' time was used in the assessment. Theoretically, if the homemaker could not perform a critical homemaking task another member of the family could and would.

The 1978 time-use data, collected from an eleven state urban/rural regional study, were used in this analysis. For more information on data collection, methodology and initial results see Family Time Use: an eleven state urban/rural comparison (Lovingood, 1980). For additional information see Time Use: a measure of household production of goods and services (Walker and Woods, 1976) and "An Interstate Urban/Rural Comparison of Families' Time Use," HERJ (Vol. 12, No. 2) (1983).

Results

Preliminary analysis suggests that the methodology presented here can work, keeping in mind all the limitations. Many of the same problems inherent to regional economics are also apparent when working with families.

Assumption Method

The first method, the assumption method, was calculated using data from two-parent, two-child families of full time homemakers and at least one pre-school child. The analysis was done by weekday/Saturday/Sunday due to the known variation in work activities. The results using both assumption method techniques are summarized in Table 2 and 3. Using total family time, the sustaining level is defined as the nonexchangeable portion of the total internal time allocation. Using the two methods, subjective and relative, 22 and 16 hours per week were determined to be non-exchangeable respectively. The majority of the time would be allocated to food preparation, physical and non-physical care of family members. It also should be pointed out that there was an additional 62 and 68 hours spent in household production by the family which by our definition could have been allocated to another activity.

TABLE 2. Assumption Method One: Results of Author Assigned Percentages in minutes per day.

Activity	Exchangeable Time			Non-Exchangeable Time		
Food	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
Preparation	70.87	65.40	71.35	17.71	16.35	17.83
Dish Washing	31.52	28.15	31.49	7.88	7.03	7.87
Shopping	20.36	26.22	19.40	47.51	61.20	45.28
House Cleaning	35.34	34.74	36.77	13.88	9.19	7.5
Yard	64.07	68.49	86.49	7.11	7.61	9.61
Clothing Care	27.37	25.38	18.51	3.06	2.82	2.05
Sewing	13.03	8.93	9.85	.68	.47	.51
Physical Care	64.24	63.87	65.81	42.83	42.58	43.87
Non-Physical Care	47.45	37.96	46.64	47.45	37.96	46.64
Management	23.33	20.92	20.43	4.11	3.69	3.60
Totals	417.98	400.06	406.74	192.22	187.09	186.45
Weekly	2925.86	400.06	406.74	961.10	187.09	186.45
in hours	48.76	6.6	6.77	16.01	3.11	3.10
Total			62.19			22.22

TABLE 3. Assumption Method Two: Results of One-Half the Median Time Spent by Family Members in Household Production Activities in minutes per day.

Activity	Non-Exchangeable Time Weekday	Saturday	Sunday
Food			
Preparation	37.5	32.5	40.0
Dish Washing	15.0	15.0	17.5
Shopping	2.5	22.5	15.0
House Cleaning	7.5	22.5	12.5
Yard	2.5	5.0	12.5
Clothing Care	2.5	0.0	0.0
Sewing	0.0	0.0	0.0
Phyiscal Care	30.0	0.0	45.0
Non-Phyiscal			
Care	37.5	20.0	30.0
Management	0.0	0.0	0.0
Totals	145.0	117.5	136.5
Weekly	725.0	117.5	136.5
in hours	12.0	1.9	2.2
Total			16.1

Location Quotient

The location quotient method resulted in the largest amount of non-exchangeable time, 35 hours per week. This method represents a "long-term" measure in regional economics and usually higher than the other methods (Miernyk, 1978). Due to the data collection methodology this number might better reflect the minimum time required by a family in the "long-run" rather than a daily minimum.

Minimum Requirement

The minimum requirement resulted in the lowest estimate of non-exchangeable time, 20 minutes per day or 2 hours a week. While this number is very low, it might represent the minimum daily demands of a family over the short run.

While researchers and statisticians tend to migrate to the middle numbers, it is felt that the numbers resulting from the location quotient and minimum requirements methods, while extreme, may better represent the true variability of family time demands on a day to day basis. Families can and do supply minimum or zero household production during times of high demands from other activities (marketplace and school) and then make up for the lost time at some less demanding future time. It is interesting to note that the average time spent in household production by homemakers who are employed full time is 35 hours a week (Olson, 1982), the same amount of time which resulted from the location quotient technique; perhaps, full time employed homemakers are already at a minimum level of household production.

Summary and Conclusions

While the tools and units of measurements were designed for a different purpose, their applicability to a new arena may provide us with useful insights into the source of production for families. Preliminary analyses suggest that the methodolgies presented here do work, with limitations. Many of the problems inherent to regional economics are also apparent when working with family data. Exports, instead of leaving the family, are those activities which the family would be willing to delegate to outside help or to purchase, using the additional time in other productive activities, such as marketplace production or leisure time. The non-export becomes the non-exchangeable, those activities families must do for themselves. Measures of family productivity with more subjective measures of household functioning could help us to better understand the concept of sustaining or maintaining levels of household production and its correlates.

As single adults or two-paycheck families constitute a greater percentage of households, time available for household production is becoming scarce. The family must make decisions about what can be delegated outside the unit as well as make changes within. There is little evidence to support the concept that families are becoming more egalitarian (Giele, 1984), with child care perhaps being the exception, nor is there evidence to show that children of employed homemakers are spending appreciable amounts of time in ways different from the other children (Olson, 1982). Therefore, delegation outside the unit, given the resources to purchase or the acceptance to change standards, needs to be explored.

This study has attempted to provide a method, using time as a measurement, to determine which activities families are more willing to delegate to outside units. This information could aid families in allocating and prioritizing their activities, i.e. spend more time in child care and purchase the necessary housecleaning. Families need help in deciding which activities are critical to to the functioning and sustaining of their family unit.

The analytical work presented here, along with other successful subjective measurements, could lead to a better understanding of the human resource demand within the family unit. For a given family composition, where factors directly influencing the household workload are accounted for, the additional time beyond the amount determined to be non-exchangeable might be viewed as what is "substituted" for work in the other realm. The approach does not attempt to measure levels of living, but rather, at some base level of family labor resources required for family functioning. Understanding of these limits might contribute more realistic approaches to the analysis of family work choices. A better understanding of how families function and factors which affect its well-being is an important societal need.

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"CAN TOOLS FOR REGIONAL ECONOMICS BE USED TO ASSESS THE EXPORT OF TIME TO THE MARKETPLACE?" - A RESPONSE -

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The paper by Olson and Olson was refreshingly different and introduced a new way of looking at the family as an economic unit. Like regional economies, families used to be totally self-contained and closed. Everything needed was produced and consumed within its boundaries. Now most local economies are more nearly the opposite and so are families--purchasing, or importing, a great deal of their needs from outside. In order to make those purchases, money must be earned through exports--in the family's case the export of time to the market.

The authors purport to have set themselves the worthy but awesome charge of developing a framework for accessing links among family demands, alternative sources of production and family cohesiveness. What they in fact attempt in this paper is to use three measurement techniques borrowed from regional economics to measure the amount of nonexport-related time needed to sustain family functioning. The paper is, as the authors point out, only an exploration. Many potential challenges to or criticisms of the interesting and novel ideas presented are anticipated by the authors themselves, with a recognition that more work on the subject is needed. I will, nonetheless, discuss what I see as a few issues worth comment.

The first and most fundamental is the weakness, or indeed the absence of a theoretical foundation. In the section named "Theoretical Framework" in fact no theory is laid out. Rather, we read a review of previous studies in the area of household production. In the "Methodology" section the authors do offer what they call a theoretical model, but in fact it is merely an identity, defining total employment time as the sum of its parts. As I am sure these authors are aware, the economic base model introduces functional, causal relationships between the variables and other exogenous factors. (1, p.7) A family economic base model must too. Three approaches are then used to bifurcate family time into exchangeable and non-exchangeable, but these methods have little meaning if the theoretical base or reasoning underlying what is being divided is not clear. The relevance of any unit of measure is ambiguous.

In suggesting that regional economic theory can be applied to families, Olson and Olson describe the economic base model thus: "As exchangeable activities are considered 'city building' activities, the inference is that an increase in exchangeable activities will result in a growth of total economic activity, while a decrease in these activities will result in a decrease of total economic activity." If we substitute family time for economic activity as the authors say they do in using regional economic theory to explain family use of time, we would be saying this: "as exchangeable time is considered family-building time, the inference is that an increase in exchangeable time (that is time in the market, in volunteer work, etc.) will result in a growth of total family time, while a decrease in exchangeable time will result in a decrease of total family time." This obviously doesn't work... time is finite within the family. The authors have a fascinating idea by the tail that would be exciting to develop. However, they need to work on building a theoretical foundation modeling non-exchangeable time as a function of variables including, for instance, income, relative prices, opportunity costs, and tastes and preferences for home production versus market services, as a reason for applying any measurement techniques. Any discussion of the bifurcation techniques themselves seems irrelevant until this is done.

On a less analytic and more philosophical level, several questions come to mind when looking at the family's use of time as Olson and Olson do. We appear to be saying that exporting time is good for the family as it is for the local economy. Indeed money comes in to the family as a result that can be used to "import" goods and services. But a contradiction appears when we also say that it is good for the family, as it is for the local economy, to reduce imports to prevent money leaking out of the family. The difference seems to be that family time, unlike economic activity with which we draw a parallel, is finite, and it is impossible for the family to increase "exports" and decrease "imports" at the same time. Two-earner families and single employed parents try to do this to a certain extent by giving up leisure and sleep, but there is a limit!

Certainly the authors appreciate that looking at families from a purely economic viewpoint is only part of the picture. What a family can survive on is not necessarily anything to do with what is best for each family. Tastes and preferences for home production as opposed to hired outside services are some of the variables among families not allowed for by the regional economic parallel. In addition, while using the lowest proportion of time spent by comparable families, or even half the median, as the "survival" level may make theoretical sense, in the real world of

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it does not. When it comes to qualitative aspects of family life, such as time for interaction, rather than quantitative aspects, like time to wash fours sets of dishes, one cannot say that the lowest level observed is in fact adequate to assure family stability.

In conclusion, it was stimulating to read a paper that ventured onto fresh ground and attempted to develop new theory. I look forward to next year's meeting to hear how Olson and Olson, as they promise, explore the topic further and work to arrive at a more scientific base for their exploration.

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RESPONSE TO 'CAN TOOLS FOR REGIONAL ECONOMICS BE USED TO ASSESS THE EXPORT OF FAMILY TIME TO THE MARKETPLACE: A THEORETICAL EXPLORATION.'

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Regional economics has no single definition. The lack of a precise definition therefore can create problems for researchers who wish to use the concept of regional economics to examine household production. However, it is by experimenting with such a concept that we can discover a new approach to an old problem.

Pam and Geraldine have done an excellent job of explaining in their paper how they are attempting to use some tools of regional economics to examine the exportation of family time to the marketplace. I would like to identify some of the other tools of regional economics and suggest that Pam and Geraldine incorporate these other tools into their exploration.

Regional economics involves the use of voluntary poverty and externalities to explain exchange theory. The goal is to not only concentrate on overcoming the scarcity of goods - food, water, housing, energy - through more efficient and increased production methods but also not to ignore the negative side effects - pollution, job loss, health hazards - created by such production methods. If we examine the exportation of family time from household production to the marketplace we find the families also depend more on the marketplace. For example, there is an increased amount of services purchased. However, exporting time also can result in the reduction of personal time and free time. These two time areas are difficult, if not impossible, to import from the marketplace and such reduction can create increased personal and family stress leading to inefficient home and marketplace production.

Another tool or principle of regional economics is the examination of resources available to have efficient increased production. Two resources important to time research are the skill and knowledge of the household being studied. Does not a person's or family's resources of skill and knowledge determine if the exportation of time is truely efficient for society while not being detrimental to the family? The examination of such resources are a must in Pam and Geraldine's research.

A goal in regional economics is to find methods to increase the production of goods and services and to be efficient in this production. Time can be used more efficiently, but time is finite. The number of hours available can not be increased.

Looking beyond this present meeting how might this exploratory theory be used by society. If the theory's purpose and application are not complete and well explained its use in wrongful death and displaced homemakers court cases might result in a stated reduced value of home production. Much of our society today still does not internalize the cost of home production and therefore still ignores the side effects created when we export our time from home to the marketplace.

I encourage Pam and Geraldine to continue with their exploration of this research. The final result could be beneficial to all. I also ask that they more closely examine the whole as well as the parts that we might see both the gains and losses of such actions as exporting family time to the marketplace.

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AN ANALYSIS OF PERCEIVED ECONOMIC AND PSYCHO-SOCIAL WELL-BEING OF RURAL NEVADA RESIDENTS WITH AND WITHOUT INVESTMENT INCOME

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Abstract

In order to achieve and maintain economic well-being, individuals and families must be willing and able to delay current gratification for future satisfaction. This is particularly true for long-term residents of boom/bust communities. Differences between rural residents with and without investment income are reported in this paper. The results have important implications for both financial management eduators and financial planners and point to the need for cooperative efforts.

An ongoing concern of family economics and management professionals is the enhancement of family economic and psycho-social well-being. One of the primary factors that professionals have identified as central to maintaining a sense of well-being is management of income. Professionals in the field of family economics have also found that both the amount and source of income are important to family economic well-being. Level of income is a primary resource which limits the development and use of families' other resources, while source of income affects well-being in other ways. Income derived from assets provides individuals and families with more sense of control than income derived from other sources, and having a sense of control is fundamental to economic and psycho-social well-being (Fuchs, 1983).

A major premise, based on the life-cycle income hypothesis is that people accumulate assets (personal and real property, savings and investments) in order to maintain a particular level of consumption when labor income falls or disappears (Modigliani, 1966). One factor contributing to fluctuating levels of income is change in the general economic climate. Hefferen (1986, p.7) states that in periods of economic expansion, consumers tend to increase spending and debt in response to a spirit of optimism. However, during economic downturns, consumer reduce spending and debt, but increase savings in retrenchment efforts. Hefferen's conclusions are supported by the observation that individuals who reached adulthood during the Great Depression of the 1930's have more conservative attitudes toward consumption, saving and investing than those who entered adulthood during the peacetime prosperity of the 1960's (Fuchs, 1983).

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People also accumulate assets through saving and investing in order to deal with economic uncertainty and financial insecurity which are often components of other stressful life situations, such as unemployment, illness, and relocation. Residents of many rural Nevada communities must deal with an additional source of economic uncertainty prevalent in this state: "boom/bust" cycles in the local economy. While many community residents migrate with the economic cycles, long term residents of "boom-bust" communities have committed themselves to a particular lifestyle which includes adaptations which facilitate living in an unstable economic environment.

People respond differently to uncertainty and stress. Some are proactive and inner directed. They deal directly with stressful events by using their own problem solving and management skills and they recognize and use resources available to them in their environment. Other people are reactive. They are present oriented and have a limited reference for dealing with stressful events. This group is likely to use denial and avoidance behaviors due to a lack of skills and a reactive orientation (Schafer, 1978).

Ongoing research and theory development has centered on examining and attempting to identify relationships among income, consumption, debt, savings, and investments. Little research has centered on the relationships among stress, perceived life satisfaction, and sources of income.

Theoretically, there are positive relationships among having investment income, having a feeling of being in control of one's personal financial situation, and having a positive perception of economic well-being. In this study, it was posited that having investment income would enable individuals to be somewhat independent of local economic conditions. It was also anticipated that respondents with investment income would tend to be middle-aged, well-educated professionals who were long time residents of the communities. Along with their socio-economic status and stage in the life cycle, they were expected to have higher levels of income and savings and lower levels of debt than respondents without investment income. It was also assumed that investment behavior was indicative of a proactive orientation, and therefore respondents with investment income were expected to react to stress with proactive (eg. problem-solving and support-seeking) rather than with reactive (eg. avoidance) behavior.

Objectives of the Study

The sample included both those who had investment income (n=134) and those who did not have investment income (n=182). The problem was to determine whether there were significant differences in economic satisfaction between those with and without investment income and whether or not there were significant differences in the psycho-social and demographic characteristics of the two groups. Specifically, the objectives of this study were:

1. to determine whether or not there were differences between those with and without investment income in:
   a. age, sex, level of education, occupation of respondent, occupation of spouse, length of residence in the community, level of income, level of debt, and level of savings.
   b. satisfaction with their economic situation and family life
   c. levels of stress and strategies used to cope with stress.
2. to determine the degree to which each of the satisfaction variables discriminated between those with and without investment income.

It was expected that those who had investment income would have higher levels of education and income and would experience lower levels of stress, higher levels of economic satisfaction, higher levels of satisfaction with family life, higher levels of savings, lower levels of debt. It was also anticipated that those with investment income would be engaged in professional occupations and that they would use proactive coping strategies in dealing with stress.

Description of the Sample

The 342 subjects included in this study were residents of rural Nevada communities which were heavily dependent on the mining industry. The four communities were characterized as having a "boom/bust" economic cycle. The data were collected in February and March of 1985, a time period identified as a "bust" stage in the economic cycle. Major mining operations which had served as the economic base of the communities had been discontinued in each of the four counties included in the survey.

The average length of residence in the communities was 22 years and the average age of the respondents was 47.8 years. Of the 342 respondents, 134 indicated that income from investments was one of three most important sources of total household income. The respondents average level of savings was equal to five months income, while their average level of debt was equal to four months of income. Sixty respondents had savings equal to more than two years' income, and 64 reported having no debts other than mortgage debt. It was assumed that these people have chosen their rural residence as the place to live and are highly motivated to control their consumption, savings, and investments in order to support their desired life style.

Data Collection

The sample was selected using a stratified random sampling technique. Non-metropolitan counties were stratified into northern and southern geographical areas, by latitude. Two counties were then randomly selected from each strata, and the largest community in each county was sampled (Yerington in Lyon county; Goldfield in Esmeralda County; Tonopah in Nye County; and Ely in White Pine County). Households within each community were randomly selected from telephone directories and data were collected using Dillman's (1978) Total Design Method.

Instrumentation

A survey questionnaire was used to collect data for the study. Two scales, a modified version of the Moos Coping Scale and Cohen's Measurement of Stress, were used to assess respondent's coping strategies and stress levels. Items assessing levels of savings, debt, sources of income, satisfaction and demographic information were also included in the questionnaire. The modified Moos Scale included 33 Likert type items. Each item had four categories and was scored from zero (no) to three (Yes, fairly often). The total number of items had been reduced from 33 to 21 by factor analysis in a previous study conducted by the authors (Haldeman & Peters, 1986). The 21 items loaded on three factors which were similar to subscales identified by Moos. These factors were named PROBLEM SOLVING, SUPPORT SEEKING, AND AVOIDANCE COPING (Table 1).

Table 1: Items Included in the Modified Moos Coping Scale

FACTOR

Problem Solving

*1. Tried to find out more about the situation.
*2. Talked with spouse or there relative about the problem.
*3. Talked with friend about the problem.
4. Tried to see the positive side of the situation.
5. Got busy with other things to keep my mind off the situation.
6. Made a plan of action and followed it.
7. Considered several alternatives for handling the problem.
8. Took things one day at a time, one step at a time.
9. Tried to step back from the situation and be more objective.
10. Went over the situation to my mind to try to understand it.
11. Tried not to act hastily or follow my first hunch.
12. Told myself things that helped me feel better.
13. I know what had to be done and tried harder to make things work.

Support Seeking

*1. Tried to find out more about the situation.
*2. Talked with spouse or other relative about the problem.
*3. Talked with friend about the problem.
4. Talked with professional person (doctor, clergy).
5. Prayed for guidance and/or strength.
6. Sought help from persons or groups with similar experiences.

Avoidance Behavior

1. Took it out on other people when I felt angry or depressed.
2. Tried to reduce tension by drinking.
3. Tried to reduce tension by eating.
4. Tried to reduce tension by smoking.
5. Tried to reduce tension with tranquilizers.

*These items loaded on two factors.

Cohen's scale (Table 2) included 14 items which assessed respondents feelings of stress during the month previous to data collection. There were five categories of responses on a Likert type scale. Responses were scored from zero (Never) to four (Very often).

Table 2. Items included on the Cohen Stress Assessment Scale

IN THE LAST MONTH HOW OFTEN HAVE YOU:

1. Been upset because of something that happened unexpectedly?
2. Felt that you were unable to control the important things in your life?
3. Felt nervous and "stressed"?
4. Dealt successfully with irritating life hassles?
5. Felt that you were effectively coping with important changes that were occurring in your life?
6. Felt confident about your ability to handle your personal problems?
7. Felt that things were going your way?
8. Found that you could not cope with all the things you had to do?
9. Been able to control irritation in your life?
10. Felt that you were on top of things?
11. Been angered because of things that happened that were outside of your control?
12. Found yourself thinking about things that you have to accomplish?
13. Been able to control the way you spend your time?
14. Felt difficulties were piling up so high that you could not overcome them?

Levels of savings and non-mortgage debt were each measured by one item which included eleven response categories ranging from no savings or debt to savings or debt levels which equalled more than two years' income. Levels of satisfaction were measured across seven variables (Table 3). Investment income was not recorded as a dollar figure but as one of 14 possible sources of income (eg. wages or salary, pensions, welfare benefits, loans, gifts, etc.). Respondents were asked to check all sources of income and then indicate the most important, second most important and third most important sources of income based on the amount of income received from that source.

Table 3: Items Measuring Levels of Economic and Psycho-Social Satisfaction

HOW SATISFIED ARE YOU WITH:

1. Your level of income.
2. Money for family necessities
3. Your ability to handle financial emergencies.
4. Amount of money you owe (mortgage, loans, credit cards).
5. Level of savings.
6. Money for future needs of family.
7. Your family life.

Analysis of the Data

Chi square analysis was used to assess whether or not having investment income was dependent on selected demographic characteristics (age, sex, income level, level of education, occupation of respondent, occupation of spouse, length of residence in the community) and selected measures of economic well-being (level of debt and level of savings). Only two variables achieved statistical significance: occupation of the respondent and level of savings (Table 4). The major difference in occupation of those with and without investment income was in the professional group (administrators, engineers, scientists and teachers). The observed number of professionals with investment income was much greater than expected. The greatest difference in level of saving for those with and without investment income occurred in the group of respondents with more than two years of accumulated savings. Again, those with investment income had higher than expected observed frequencies for this category.

Table 4: Significant Differences in Occupation and Levels of Savings for Respondents With and Without Investment Income

	Investment Income			
	Yes		No	
Occupation	O[a]	(E)[b]	O[a]	(E)[b]
1. Administrative, engineering, scientific, teaching, and related.	42	(29.9)	27	(39.1)
2. Technical, clerical, sales, and related.	38	(40.7)	56	(53.3)
3. Service, including military.	17	(19.1)	27	(24.9)
4. Farming, forestry, fishing and hunting.	1	(1.3)	2	(1.7)
5. Precision production, crafts and repair.	10	(12.6)	19	(16.4)
6. Operators, fabricators labours	9	(13.4)	22	(17.0)

Chi square = 12.99
Degrees of freedom = 5
Probability of chance = .024

	Investment Income			
	Yes		No	
SAVINGS	O[a]	(E)[b]	O[a]	(E)[b]
1. No savings	19	(20.4)	29	(27.6)
2. Less than one years income	58	(77.6)	125	(105.4)
3. One to two years income	17	(12.3)	12	(16.7)
4. More than two years income	40	(23.7)	16	(32.3)

Chi square = 31.19
Degrees of freedom = 3.
Probability of chance = .0000

[a] O = observed frequencies
[b] E = expected frequencies

Stepwise discriminant analysis was performed using the seven satisfaction variables as predictors of group membership. Predictor variables were satisfaction with level of income, money for necessities, ability to handle financial emergencies, amount of money owed, level of savings, and money for future needs, and family life. The two groups established were those with and those without investment income. Mahalonobis distance was used to direct the stepping progression in the analysis.

The discriminant function was used to assess the relative contribution of each predictor variable to the prediction of group membership. A classification function was also calculated to determine the degree of accuracy in classification using the discriminant function.

One discriminant function was calculated with a combined X^2 (4)=34.364, P=.0000, which indicated that the two groups, those with and without investment income, were significantly different in their levels of financial satisfaction. Four of the seven predictor variables entered the equation. The primary variable distinguishing between these two groups was satisfaction with money available for necessities. Those with investment income were more satisfied with available funds than those without investment income.

Also contributing to discrimination between the two groups was satisfaction with level of savings, level of income, and amount of money owed. Those with investment income were more satisfied than those without in all three categories. Table 5 presents a summary of the results of the analysis, including group means for the predictor variables.

Table 5: Means, Discriminant Function Loadings, and Group Controids for Respondents With and Without Investment Income

		MEANS	
Predictor Variable	Discriminant Loading	Respondents With Invest. Income	Respondents Without Invest. Income
Satisfaction with level of income	-0.34	4.08	3.59
Satisfaction with money for family necessities	0.87	4.34	3.58
Satisfaction with money you owe	0.25	4.59	3.92
Satisfaction with level of savings	0.35	3.75	3.02

Cononical R = 0.35 Eigenvalue = 0.14

Group centroids:
Respondents with investment income = -.33
Respondents without investment income = .41

A classification function was also calculated for each group. Actual and predicted group membership results are presented in Table 6. Accuracy in prediction was somewhat greater for those with investment income than for those without. The overall accuracy for all classifications was 63.6%.

Table 6: Actual and Predicted Group Membership for Respondents With and Without Investment Income

		PREDICTED GROUP MEMBERSHIP	
Actual Group Membership	Number of cases[a]	Respondents With Invest. Income	Respondents Without Invest. Income
Respondents with investment income	125	91 (72.8%)	34 (27.2%)
Respondents without investment income	158	69 (43.7%)	89 (56.3%)
	% of grouped cases correctly classified = 63.6%		

[a]Fifty-three cases had at least one missing discriminating variable, therefore they were not included in the analysis.

Four one way analyses of variance were used to determine whether or not the two groups differed significantly according to levels of stress and types of coping strategies used (PROBLEM SOLVING, SUPPORT SEEKING, and AVOIDANCE COPING). No difference was found in respondents' levels of stress, or use of SUPPORT SEEKING coping strategies. However, respondents with and without investment income differed significantly in respect to AVOIDANCE COPING, $F(1,314) = 4.458$, $p = .036$. Those with investment income used fewer avoidance type coping behaviors than those without investment income.

Conclusions

As expected, those with investment income were more satisfied with their economic situation than those without investment income. However, there were no differences in the two groups in their satisfaction with family life. These finds support the theory that the type of income (which is realted to control over income) contributes to a significant increase in perceived economic well-being.

Only one question was used to assess satisfaction with family life, therefore it is not surprising that no difference was found between the groups on this variable. There are numerous dimensions in family life and a variety of questions is undoubtedly needed to assess the global quality of satisfaction.

In general, respondents with and without investment income did not differ in demographic characteristics but there were differences between the two groups in type of occupation. Respondents in professional occupations were more likely than respondents in other categories to have sources of investment income. Proactive or managerial skills, which are an integral component of professional employment, would logically carry over into personal life. Another possibility is that professionals may have more access to employer sponsored investment programs, such as profit-sharing, which encourage investment behavior.

Respondents with investment income were more satisfied with levels of income, levels of debt, money for necessitities, and levels of saving than those without investment income. The respondents did not differ in age, or level of education, income, or debt, but those with investment income had higher levels of savings. These findings provide evidence that at any age, education, income, or debt level, investment income and savings are associated with higher levels of economic satisfaction.

It was expected that respondents who had lived in the communities long enough to experience the boom/bust fluctuations in the local economy would be more likely to have investment income than newcomers because they would have lived through the economic fluctuations and would see the need to prepare for hard times. No difference in length of residence in the community was found and the reason for this finding was obvious once the data were examined more closely. There were few newcomers in these communities . . . mean number of years of residence was 22 years!

There were also no differences between the two groups in levels of stress, but there was a difference in the type of coping strategy used to deal with stress. As expected, those with investment income were less likely to use avoidance coping behaviors. This means that those with investment income were just as likely as those without investment income to experience stress, but they responded to it differently.

The distinguishing characteristics of respondents with investment income were that they had higher levels of savings, were more likely to be satisfied with their economic situation, were less likely to use avoidance behaviors when coping with stress, and were more likely to be employed as administrators, scientists, engineers, and teachers than those without income from investments.

These findings add a new dimension to the Life Cycle Income Hypothesis. The typical bell shaped curve representing the lifetime income pattern does not appear to be representative of

this population. A more accurate representation is probably a multimodal pattern which depicts the respondents' ability to adapt to the boom/bust economy regardless of age, educational level, and income level. Family financial management professionals (educators and planners) will find this information useful in identifying target populations and in designing programs to meet the unique needs of rural communities.

The next stage in the development of this research would be to examine psycho-social and economic characteristics of respondents in rural boom/bust communities using different levels of investment income and the relation of the amount of investment income to total income. Satisfaction with family life should also be assessed using a more comprehensive measure. It is possible that significant findings in this study were masked by limitations in the type of data that were available.

Early in the life cycle, individuals need access to information about savings and investments. They also need to understand the advantages of a proactive approach to problem solving. In particular, people who wish to remain in an area characterized by a boom/bust economy need to be aware of the economic implication of delaying gratification and investing in the future. Once this awareness has been created, younger families need both decision-making skills and specific financial strategies for allocating income to meet both present and future demands. Since avoidance appears to be a characteristic means of coping for some rural residents, family financial management professionals face a challenging task in working with this population. Cooperative efforts among a variety of professionals are more likely to be effective than independent efforts.

RESPONSE TO
"SURVIVING IN A BOOM-BUST ECONOMY: AN ANALYSIS OF RESIDENTS WITH AND WITHOUT INVESTMENT INCOME"

by Jeanne M. Peters, Virginia Haldeman, and Sally Martin, University of Nevada-Reno

Response by: John R. Burton, University of Utah

Even though the Reagan administration is claiming responsibility for generating national prosperity, there are still many segments of the economy that are not benefiting from Reaganomics. These include agriculture, petroleum, and minerals. In the Intermountain West we are very aware of the depression in these industries. From a macro perspective, these depressed industries have reduced state incomes. From a micro perspective, problems in the agricultural, energy, and mineral industries have affected family economic well-being. Because many families are hurting from the current economic conditions in the mining and oil dependent states, we need more information on how boom-bust business cycles affect the financial well being, and in turn, the total well being of the family. Therefore, it is very appropriate that these authors embarked on a comprehensive research endeavor in an attempt to determine how families do cope with cyclical nature of volatile economies.

Peters, Haldeman, and Martin introduce their subject well. They make a strong case for doing this study. The authors have well-defined and appropriate objectives. With certain modifications in the data collection and in the use and/or in the interpretation of the data, they will draw some valuable insights into how families cope with the vagaries of boom-bust economic conditions. In a presumptuous way, I hope that my criticisms and remarks will assist the authors in making their good efforts even better. As you read my response to this paper, you must take into consideration that I saw only a short summary of a work that represents long hours of research that had to be recorded on just the few pages that are allotted for presenters. Upon further elaboration on the part of the authors, many of my comments may be found to be moot or erroneous.

The data for this study were collected by a telephone survey method. This paper was sketchy about the details of the method used, especially concerning who in the household answered the questions. Survey literature shows that women are the household members who most often answer the phone, therefore, unless techniques were used to balance the sex of the respondents, the data may show a sex-related bias. Spouses are not always in agreement on the answers to questions related to household finance. Also, by using the telephone directory as the source of the sample, biases are introduced against those not having phones (families that have really "busted") and those who have unlisted numbers (women between the ages of 20 and 45). A recent article by Schmidley [1986] discusses some of the biases of telephone surveys that these authors may have encountered in their study.

I would like to suggest some changes in terminology in this report. The authors define "survivors" as persons who have remained in their community as a survival strategy. However, one could make the argument that one survival strategy is to move to another community. People who remain may be doing so because they have no viable choice. The label "survivor" is not critical to this paper and it might be less distracting to the reader if omitted. Also, the authors may wish to take more care in the use of the term "boom-bust" since there is little data in this study that pertains to the boom-bust aspects of the sample. I would speculate that a boom-bust community may contain three general types of residents. They might be those who are in no way related to boom-bust industries and therefore not affected by it (this might include management of boom-bust industries who were kept on the job during slow periods); those who are totally dependent on a volatile industry and may be in dire economic circumstances when the bust occurs; and those who are partially affected by the economy, e.g. merchants who cater to the two former groups. The sample does not differentiate between these groups nor does it take into account those who have left the community because their employer has gone bust. In retrospect, an important dimension would be added to this study if the researchers had asked questions which could have identified these three groups. It also may be helpful to readers in the interpretation of the data, to know how long the communities had been in the bust stage of the cycle. Families may have given different responses depending on whether they were in the earlier stages of the bust cycle (and not yet accommodated to the lesser income) or in the later stages (having had sufficient time to adjust).

The authors have collected a considerable amount of interesting and usable data in this study. A reputable scale for measuring coping (Moos Coping Scale) has been used, however, the authors may wish to elaborate more extensively on how their modifications of this scale affected reliability and internal consistency.

The data concerning one of their primary variables, investment income, is somewhat problematic. The authors have recognized the difficulty with not knowing the amount of the investment income for each respondent, however, there is the additional problem of not defining

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for the respondent the meaning of the term investment income. Investment income may have a different meaning to different people. To some, it might just mean dividends from stocks and bonds, while to others it might also be interpreted as income from rental property, income on pensions, profits from proprietorships, return on capital equipment for farm production, interest on savings accounts and/or other things as well. Therefore, when the findings of this paper show that more professionals have investment income than do the other groups, this statement may not always be correct. This finding may actually be a function of some professionals having a broader definition of the term investment income. This non-specific definition of investment income may also add some confusion to the interpretation of the Savings section of Table 4.

In the analysis of the data, the authors found that those with investment income were more satisfied with available funds than those without investment income. Without controlling for satisfaction with the level of income, it is difficult to assume that those with investment income were more satisfied with their economic situation than those without investment income. It may be that those who have higher levels of income also are more likely to have investment income. Therefore, their satisfaction is a function of level of income rather than investment income.

The authors need a greater explanation of their conclusion that the typical bell shaped curve representing the lifetime income pattern does not appear to be representative in this 'survivor' population and the statement that the lifetime income of their sample is likely to be a more multimodal pattern. From these statements it appears the authors made a leap of faith since there has not been any supporting longitudinal data presented in this paper. Another clarification that might be helpful relates to the statement, "There were no newcomers in these communities...mean number of years of residence was 22 years!" What is the definition of a "newcomer" and were there actually no newcomers as observed in the raw data? Or was this extrapolated from the mean without taking into account the distribution? If the latter, an inaccurate assumption may have been made.

As it now stands, it may be difficult to generalize from this study since the sample appears to be atypical in terms of mean age and mean number of years in residence of the respondents. According to U.S. Census data both of these figures are higher than the national average. In a revision of this paper, the authors may wish to make comparisons of the demographics of their sample with that of the rest of the nation.

One of the most important aspects of any paper is that the authors are aware of its shortcomings (and most all papers have them) and through this awareness, they will be able to improve their research on this topic. The authors have recognized the need for data concerning level of investment and the need for data on the level of investment income in relation to the amount of total income. These data, along with additional questions on satisfaction with family life, will be the basis for a very interesting and informative paper. Peters, Haldeman, and Martin, do have a paper they can build upon and they do comprehend what must be done to get to the next step.

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DISCUSSION OF
SURVIVING IN A BOOM-BUST ECONOMY: AN ANALYSIS OF RESIDENTS
WITH AND WITHOUT INVESTMENT INCOME

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The purpose of this paper, implied by the title and literature review, was to identify characteristics of a particular set of investors, namely those living in so-called boom/bust towns. The topic's import stems from both the lack of information on investors and from the potentially unique qualities of the population. Findings regarding boom/bust town residents are salient due to the recent expansion of such towns as well as the applicability of findings regarding them to the substantial fraction of the labor force in industries sensitive to large cyclic swings, such as defense and construction.

Unfortunately, contrary to what the reader expects from the title and introductory material, the analysis was actually limited to general determinants of investors, failing to incorporate features peculiar to members of extremely cyclic economies. To analyze the stated problem the authors might have compared to the boom/bust respondents with those living in more economically stable areas. However, it appeared from the discussion of the sample that the data had not been collected from both treatment and control groups in this sense.

If the sample had been limited to those within the boom/bust community then it would have been important to test hypotheses using variables measuring the impact of the economy on the investment decision. The extent of dependence on the cyclic economy and pattern of work history are two such potential measures. A review of the literature on characteristics of boom/bust communities and their members would have enabled generation of relevant variables. Until the type of economy is made directly relevant to the analysis I recommend expunging allusions to it from the paper.

While not accounting for boom/bust qualitites the analysis did explore potential characteristics of investors, a valuable topic in itself, due to the increasing numbers of investors and investments. However, a more explicit, integrated approach to the research is necessary for producing valid results.

The model of investment could have been strengthened had it relied more on established literature. Glaringly omitted from the literature review was an examination of characteristics of either investors or savers. There is a dearth of such literature but it does exist. A perusal of the WRHMFEE Conference Proceedings from the previous five years would provide an expedient beginning for this review.

The authors' use of numerous measures of economic well-being are appreciated and will be even more effective in a more integrated model. The simple income variable was not related to investment; one of the other measures of economic well-being may be more relevant. The analysis could have explored the problem of how best to measure economic well-being. A review of literature may have encouraged the comparison of well-being indicators and would have prepared the reader for the lack of relationship between income and investment. It was an interesting finding and if it continued to hold after more extensive analysis, could lead to implications about the importance of management or other competing hypotheses. Intuitively, the finding of no relationship is suspect but a review of the literature on the association between income and saving, for example, shows discrepant findings (1,2,3). A review of the literature and a more rigorously specified multivariate model accounting for other determinants of ability to invest would have given the authors firmer ground for drawing conclusions. The insinuation that savers are those who refrain from spending and consequently self-discipline and denial are key, for example, exceeds the limits of interpretation imposed by a univariate analysis of the relationship between income and investment proclivity.

Regardless of the logic on which the analysis was based, the reader's comprehension would have been aided by definitions of the dependent and independent variables including the stress and coping measures. Needless to say, this oversight made it difficult to assess the quality of the analysis and results.

The effort to assiduously adhere to assumptions underlying the statistical techniques used was appreciated. However, the analyses would have been more integrated and thus meaningful had a logit model, incorporating both categorical and interval level variables been estimated. Estimation of a full model would have justified the conclusions on page 12. As is, the findings are weak and I would prefer that the conclusions be drawn separately by analysis.

A final minor point--the lifecycle hypothesis referred to in both the introduction and conclusions could more profitably have been used to hypothesize a positive relationship between investment and life cycle stage. Life cycle stage may be an important but overlooked determinant of investment. Since the theory otherwise bears no relationship to the model nor the findings it may be omitted from discussion.

Hopefully a revision of this paper will focus on a single theme and consistently follow it through. This would include a thorough review of relevant literature to develop a multivariate model, the testing of same and thus findings and conclusions that we are looking forward to using.

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HUMAN RESOURCES--VITAL TO THE HOME BASED BUSINESS

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Abstract

Home based businesses are an important source of income for many families today. This paper describes Extension educational programming which focuses on (1) the role of human resources in home based business activities and (2) the decision making process used to assess costs and benefits from investing in development of new knowledge and skills.

Families and individuals are constantly faced with growing demands on their time, knowledge, skills and energy, as well as their money resources. Changing economic conditions increase the need for effective decision making and optimal use of both human and non-human resources. Human resources are resources such as personal energy, mental and physical abilities which cannot be separated from individuals themselves. Non-human resources include financial assets, material goods, community, and natural resources.

Human capital theory examines the development and use of human resources over time. Human capital may be defined in simple terms as an individual's "collection of productive skills, knowledge and abilities" or as "the capacity to produce goods and services." (5, pp. 471-475) It is the productive ability resulting from investments in education and training (both formal and informal), health or other activities which lead to increased capacity to produce. A money value for human capital is obtained by estimating the dollar value of the services which could be produced by a person's abilities, either for wages or salary, in self-employment, or in home production. It is difficult to measure and value human capital because noneconomic as well as economic considerations are involved in decisions about using human capital. Frequently, investments in people, such as education, have both consumption components (that is, they provide satisfaction at the present time) and an investment component (that is, they build up productive capacity for the future). Home based businesses are one way of utilizing human resources to augment money incomes. This paper describes an Extension educational effort emphasizing (1) identification of the personal resources available for income generation and (2) the decision making process used to assess costs and benefits from investing in development of new knowledge and skills.

Home based business is generally defined as work or production that results in income generation and is performed in or from the home instead of an employment or business location. These businesses are an important source of income for many families today,[3] while many others are exploring this potential. This trend is partially the result of an increasing need to supplement income, as a result of the rural crisis, unemployment, or family break-up. Another influence is the "entrepreneurial explosion" going on in this country, associated with the move from an industrial to an informational economy.(10) Periods of economic transition have historically resulted in enhanced challenges for successful risk taking to exploit new business oportunities. Social attitudes are changing, with home based businesses now regarded as creative endeavors, without the social stigma of some prior times. (7, pp. 1-8)

Among the reasons behind the upsurge in home based business in contrast to work away from home is the high cost of rent, transportation, taxes, and getting started in a business of one's own. Parents are looking for ways to combine work and child nurturing. In some areas, few suitable labor market opportunities exist. For some individuals, setting up their own business is essential to marketing their unique products or services.

Successful entrepreneurs are commonly characterized by traits such as these:

- ambition, energy and drive
- ability to absorb setbacks
- independence and risk taking
- willingness to take responsibility for decisions.
- realistic expectations about the hard work required
- persistence and flexibility
- technical knowledge of how to operate a business
- patience to wait until the business "takes off"
- resources to outlast lack of income (4, pp. 11-18; 10; 16)

While these traits can be categorized in various ways, many are clearly human resources that are

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[3] No one knows exactly how many people operate home based businesses. Recent estimates suggest that about 11.5 million people are working from their homes today, with 15 million expected to choose this type of work by 1990. Statistics vary because of definition (home business occupations may be grouped with small business or with self-employment. A definition may include work which is done at home while employed by or under contract to an employing company. More commonly, home based business describes an individually owned business which is operated from the home base. Partnerships, cooperatives or corporations may also operate businesses with a home base. Much home based business exists in the underground economy and is not reported in any way.

as vital to success in a home based business enterprise as financial and technical abilities.

A Multidisciplinary Background

Studies of factors relating to home based business draw from the fields of economics, business management, home economics, and other specialized subject areas. Economic theory rests on the assumptions that businesses respond to profit incentives and consumers maximize utility or satisfaction. Home based businesses may involve both the production and consumption functions of the family within the home environment.

Traditional economic theory of the firm assumes that the maximization of profits is the major goal of the enterprise. In reality profit maximixation may not be the ultimate goal, but a proximate one. However, entrepreneurs must be financially successful in order to survive. Small businesses, including home based ones, have a high failure rate when compared to larger firms.(16)

Business management textbooks and manuals, as well as publications of the Small Business Administration (SBA), recommend efficient business practices for the home business, generally assuming that home business activities will be conducted in some manner which separates them from family activities (i.e. work is done while the children are asleep).

There has been a gradual recognition of other motivators for business, particularly for persons involved in maintaining home based businesses. Money profits alone may not be as strong a motivator for such business persons as for the "classic entrepreneur."(12) The opportunity to have more freedom over working conditions, product control, product originality and time scheduling may be close in importance to making money for these persons. Consequently, home based entrepreneurs sometimes have difficulty in finding the right balance between profit maximizing activity and creative or hobby endeavors.

Part of this difficulty is resolved by considering the rate of return to entrepreneurs' human resources as well as the money costs to the business (materials, rent, interest, insurance, maintenance and repairs, selling costs, taxes, and other expenses of production and sales). In addition to direct money income, a value may be imputed to home and family considerations.

An individual considering the establishment of a home business will profit from using the human capital approach to analyze the situation. An analysis of resources (both human and non-human) is a vital first step. This should be followed by careful consideration of the potential returns, and then a comparison with the available resources and the need to invest in developing new knowledge and skills. Even when a person already has the ability to provide a service or make a product, business knowledge and marketing skills often must be learned.

Sometimes acquiring the needed skills, plus the time and effort involved, are greater than the potential benefits. Considering future costs and returns may show that one possible business choice is not likely to be profitable, but another may be.

Entrepreneurial Characteristics

Researchers have offered numerous and sometimes diverse descriptions of the entrepreneurial personality. An entrepreneur is defined as one who organizes and manages a business undertaking, assuming the risk for the sake of profit. Some studies look at characteristics and traits that appear common to most people who start their own businesses. Others focus on characteristics that appear frequently among owners and managers who are successful.

Although a definitive means of measuring and identifying entrepreneurial types of individuals has yet to be developed, there seems to be general agreement that people who start their own businesses are high in the need for achievement (or motivation). They usually have these three characteristics:

- moderate risk taking propensity
- acceptance of personal responsibility for decisions
- interest in concrete knowledge of the results of decisions (often using money as a measure of success)

Hull, Bosley, and Udell (4, pp. 11-18) explored entrepreneurial traits using a personality inventory of 41 items, grouped into seven scales: (1) Interest in "money or fame" as goals of life; (2) The tendency to give "socially desirable" responses; (3) Entrepreneurship and task preferences in relation to entrepreneurship; (4) Internal Locus of Control;[4] (5) Propensity to take risks; (6) Creativity; and (7) Achievement motivation.

Surveying University of Oregon alumni, they found that these three sets of variables were significant predictors of the likelihood of starting a business within three years:

1) Creativity, willingness to assume risk flexiability;
2) Frustration, tolerance, and persistence;
3) Leadership and resistance to standard operating procedure.

They did not find the internal locus of control a significant predictor and did not attempt to measure interactions with the need for achievement.

In separate studies, McClelland (8, pp. 389-392) and Borland (1) found "Locus of Control" and "Need for Achievement" to be significant predictors of entrepreneurial activity. McClelland argues that the need for achievement drives people to become entrepreneurs. However, Borland

[4] "Locus of Control" measures the degree to which a person expects to control their place in society rather than being controlled.

found that the most important variable for expectancy of starting a company was whether the student's father had started a company.

Other studies suggest that entrepreneurs are older, risk-takers, experienced, and technically oriented.(10; 13, pp. 13-17) Characteristics which appear frequently among successful business owners and managers are drive, thinking ability, competence in human relations, communication skills, and technical knowledge.

Results such as these can be interpreted in at least two ways. One is to assume that personal characteristics are set and unalterable, and that people can be divided into two groups: non-entrepreneurs and entrepreneurs. The other is to assess the current status of personal abilities and identify those qualities which need to be developed or improved. The relevant questions from this perspective is "What can you do now and what can you do with training, i.e. by investing in your own human capital?"

Time Use

Another variable affecting home based business success is the time spent on the business activity. While women owned businesses have recently increased more rapidly in numbers than businesses operated by men or jointly by men and women, SBA data indicate that the size and quality of women owned businesses has not proportionately increased over time. Stafford and Longstreth (15) investigated the variation in time spent by women vs. men entrepreneurs, finding that self-employed males spent three times as many minutes per day in paid work, self-employed females spent four times as many minutes per day in household work as the males. Their results indicated gender, lifecycle stage and spouse's educational level explained variation in total daily household work; while only gender explained differences in paid work time. While this study was not limited to home based businesses, their findings emphasize the importance of time management as a basis for success in business development.

In the fields of productivity and time use, a wide variety of both research and popular literature is available. One classic book is Lakein's How to Get Control of Your Time and Your Life,(6) which provides basic information on methods for setting goals and priorities, controlling time wasters, and "making the best use of your time right now." Winston (18) and Scott (14) have authored books which apply particularly to women and women executives. An excellent example with applications to home business is found in an article by Drennen (2, pp. 53-60). Another and often overlooked aspect of time management is productive use of otherwise empty time as discussed in an article by McKenna (9 pp. 71-81).

Many women find that their job opportunities are limited while their children are small. The longer people are out of the labor force, the more their human capital skills may depreciate. They become less attuned to managing risks and potential returns of entrepreneurship. Those who are able to find a way to continue to develop their talents and maintain professional contacts enhance the opportunities available to them in the future. A study by Tepper and Tepper (17) found that the women who were successful worked within specific time frames, with specific plans and objectives and deadlines for each day as well as near future goals. These women also emphasized the importance of maintaining business and professional contacts and sharing both expertise and problems.

Family - Business Interactions

Some new work by Gray and Owen (3) suggests that more emphasis should be placed on family functions and their integration with the home based business. They recommend that the home business entrepreneur engage in an evaluation of their family functioning style. Basing their work on Constantine's study, they analyze family functioning in terms of closed, random, open, and synchronous family forms, each of which follows different patterns of problem solving, information processing and views of the environment. They are investigating types of home based business which might be compatible with different forms of families and which might cause conflict because of a poor "fit."

Training Programs

Educational materials and workshops on the pre-business decision are provided by a variety of sources, particularly the Small Business Administration (most of whose publications include home business under the general category of small business), new programs primarily addressed to women entrepreneurs or to producer-sellers of particular products or services, such as crafts, sewing, clerical and computer services. Typically, the text, questionnaires and worksheets are designed to help individuals assess their personal qualifications, including both human and financial perspectives.

However, these questionnaires tend to assume that the individual will recognize the traits advantageous to businesses, but few explicitly point out the benefit or payoff or suggest any type of cost/benefit comparisons as to the potential profitability of investments in improving knowledge, skills, or feelings of confidence and self-worth.

Extension Educational Programs

Some types of home businesses require fewer personal skills but all require a thorough knowledge of how to turn time into money. Extension Service programs which teach basic skills and subject-matter to program participants can expand and build on this base as a method of income generation. McKenna (9, pp. 71-81) suggests looking at types of home based business possibilities by training (limited, moderate, and extensive training needs) in contrast to the more common categorization by products or services, or by need or function of clientele to be filled.

The Extension Service has offered a unique approach for entrepreneurs by teaching about human resources, home economics subject matter for

specific businesses and marketing approaches. As one participant evaluated an Extension Sewing for Profit workshop, she said "this program comes at a time when alternatives for surviving are becoming extinct, this was a light in the darkness." These programs offer hope.

Innovative training programs must go beyond the how-tos of bookkeeping, pricing mechanisms and marketing plans and move on to keys of business success such as motivation, risktaking, and persistence.

This section of the paper describes two different approaches relating to human resources and home based businesses which have been conducted and a new approach placing more emphasis on human resource decision-making.

Sewing For Profit

One program developed by the Extension Service in several states for entrepreneurs has been "Sewing for Profit." Cooperative Extension home business programs based on home economics skills have helped people use personal skills to make more resources, primarily dollars. The Sewing for Profit program has been extremely successful and has obviously met a need by reaching thousands of people in the last five years.

The people who attend custom sewing workshops are serious professionals with about half already in business and half considering starting a new business. Many of these individuals possess the technical skills but lack the business exposure and have not assessed their human capital. Many custom sewers have little sense of worth. They know the special skills required, but do not think of them as having value. Many skills are easy when you know how, but when you don't know how, the admiration for those who do is greater. Helping custom sewers look upon their talents as having value, marketable value, is sometimes critical. If custom sewers don't value their abilities, how can they expect clients to? The Extension programs try to develop this attitude and feeling of professionalism.

The Extension family life emphasis has also had an important part in the Sewing for Profit programs. A home based business affects everyone in the home and may create changes in relationships between spouses and children. At times, family members may have to adapt their schedules to those of clients. Differences in role perceptions and changes in self-concept may create the difficulties that should be acknowledged. On the other hand, a home based business may introduce possiblities for personal growth of family members. When the home becomes a place of business also, life skills are learned if only through the interactions created.

Building Human Capital

The Building Human Capital training program focuses on identifying human resources (particularly those "secret skills" people have but do not recognize as potentials for income generation) and on effective decision making. It features a brief description of the different types of human resources, using a Human Resource Tool Box. Discussion about the interrelationships of human resources to one another is encouraged, since almost all productive activities make use of a number of different resources. Several exercises and activities are provided to illustrate the decision making process and its application to individual situations. Topics covered include characteristics of resources, concepts of investment and human capital, estimating rates of return, and application to individual decisions.

A mail questionnaire was used to evaluate the program in three counties, four to six months after the sessions. Results were very favorable, with 85% of the respondents rating the program as useful. Eighty percent reported learning new information, particularly in recognizing or identifying more of their own human resources, or increased knowledge of human capital concepts and the decision making process. Nearly half of the respondents reported having made some changes to use their human resources more effectively. Some confusion over human capital concepts and potential payoffs was expressed in comments on the questionnaires, thus encouraging the idea of developing a tool to more specifically address potential benefits.

Decision making is a highly individual process. One problem commonly experienced by individuals considering the possiblility of establishing a home based business is in moving from vague ideas, dreams, and wishes to a realistic assessment of aptitudes, abilities, and other human resources, in addition to the financial costs and benefits. Analysis of costs, benefits, and consequent returns to investments in building human capital (in this case, in learning new attitudes, skills, and abilities) has received less attention than it deserves. The expanded "Time and Talent" home based business training approach described in this section explicitly defines some of these benefits or pay offs. It helps people see why changes are needed and helps them think through some possible ways to deal with limitations (through learning or delegating).

Following this section of the paper is an illustration of the worksheet we developed, listing human resources vital to the home based business. The examples given relate to a sewing for profit business, but can be tailored for any business. Individuals use this listing to assess their own resources, develop their own set of potential returns, estimate the costs (in both time and money) required for further developing each of their resources, and the expected benefit or payoff from additional training, study, or behavior change.

The worksheet may be completed either by an individual working alone or in a workshop setting, during which the instructor might give additional examples or suggestions. Examples can be either generic in nature, to apply to many types of home based business possibilities, or specifically designed for other possibilities, depending on clientele needs and interests. Time and money costs are developed by individuals or groups to apply to local situations.

This human resource focus can be carried out alone or as part of a full day workshop or series which also includes information on financial, legal, and other technical aspects of establishing or maintianing a home based business.

Summary

The human capital decision making process--that is, examining the potential returns or benefits in the future compared to the cost of the investment--can help individuals and families make better decisions about allocating their resources --for optimal benefits--both now and in the future.

A wide variety of opportunities are available to people who want to work for themselves, rather than in wage or salaried employment. The types of goods or services to be produced are limited only by a person's imagination and talents. The business may be a part-time income supplement or a full-time career. The range of income earned may also be very broad, from a few dollars a week to several hundred dollars or more.

The success of a home based business depends to a large extent on the attitudes and abilities of the individual (i.e. human capital) financial requirements, accessibility to a market, and willingness to risk the resources to get the business established. Decision making, knowledge of what can be done, and the ability to convert knowledge and skills into profit are up to the individual. Decisions and their consequences must be analyzed by the home business person to suit their unique situations. Working at home provides various options not always present in the away-from-home work setting. These alternatives may be advantageous for some and disadvantageous for others.

The "Human Resources-Vital to the Home Based Business" worksheet is a tool which strengthens on-going Extension training programs or individual counselling for individuals who are contemplating this means of supplementing their incomes.

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Human Resources: Vital to Home Based Business

Analyze your situation using the human capital approach for a home based business.

The following example for a sewing for profit home based business gives an idea how specific human resources are utilized and what the potential returns might be if these resources are more fully developed.

Worksheet

Human Resources	Potential Returns	Cost to You (time and money)	Potential Payoff: Worthwhile?
TIME In a home based business time is one of the most important resources. Learn to manage time by knowing your goals, setting priorities and do those things most important to reach those goals.			
a. ANALYZE CURRENT USE OF TIME. Make daily schedules. Make a check list as part of the schedule. Arrange schedule to complete garments as promised. Assess accurately a constructional process so you can schedule fitting appointments.	Establish work hours. Minimize interruptions.		
b. GET CONTROL OF TIME. Block your time. An hour of time without any interruptions is more beneficial than two hours of short time segments. Block time for your prime time. Some kinds of work, such as bookkeeping, require periods without interruption, while others can be more intermittent. Some work (day care) requires almost constant attention, and family activities may be postponed. Organize and adopt a system or schedule best suited to your personality, such as difficult tasks early in the day, sew on black and dark items during the day, white or light items in the evening. Let customers know your work schedule and business hours.	Better work schedule. Higher quality work--fewer mistakes.		
c. ANALYZE AND ORGANIZE TASKS. Knowing your position for tasks to be accomplished will help you reach your goals. Consider making a daily "to do" list. It is best to make your list at the end of one day for the following day. Setting priorities is part of both time management and planning. Establish fees for garments which are very time costly.	More professional, more productive.		
d. USE SPACE TO CONTROL TIME AND EFFORT. Most people can work more efficiently in a place with some order. If you find yourself looking for things continuously, it is a clue to do some reorganizing. Store things where you use them. As a serious dressmaker, you will spend more waking hours in your sewing room then in any other part of your home. You need the most convenient, best designed work area your space will allow. A separate sewing room in your home is desirable but not necessary. Consider a location that will provide privacy for customers during fittings. Be sure a full-length mirror is available. Locate the sewing area in relation to other activities. Basement or second floor sewing areas result in extra steps but provide more privacy and freedom from interruption. A desk or table with chairs where you can confer with customers gives an appearance of organization and professionalism.	Makes work flow smoother. Reduces stress fatigue.		
e. FIT TIME USE TO GOALS. Some home based businesses permit greater control over time scheduling of productive activities, while others are strongly influenced by seasons and time (but all have deadlines).	Reach goals.		

Human Resources	Potential Returns	Cost to You (time and money)	Potential Payoff Worthwhile?
A major challenge for many custom services is managing time. Sewing as a hobby is done off and on or where time is available. Sewing as a business is done on a regular basis. A few tips: • Cut out several garments at one time including interfacing and linings. • Whenever possible stitch as many parts of a garment as possible before going to the ironing board to press. • Keep work areas relatively neat and put equipment where it belongs. Hunting for a special notion can waste time and breaks concentration. • Keep equipment in good working order. Good equipment that works properly is a time saver and makes the job easier.			
f. DELEGATE. Use a friend to help if he or she has sewing skills. If your workload is heavy, try the assembly line approach to sewing projects.	Eliminate work that someone else can do.		
PERSONAL ENERGY Individuals involved in a home based business need to have the capacity for working.			
a. MEETING DEMANDS. Most people experience up and downs in their energy level throughout the day. Recognize your prime time and plan to accomplish your most difficult tasks at that time. You are more apt to concentrate harder and finish the task in a shorter time than any other point in the day. Sew the difficult projects early in the day.	Accomplish more.		
b. GOOD HEALTH. Good health equals more energy. Remember to include well-balanced meals and exercise in your daily schedule. Don't run yourself short of fuel. Establish regular work hours with lunch and coffee breaks.	Accomplish more.		
c. BALANCING ENERGY BETWEEN WORK AND FAMILY. Provide time for yourself and your family. If you have children, be sure to allow time in your schedule for interruptions and other family responsibilities.	Quality time for work and family.		
SKILLS Without skills and talent, a home based business does not have a foundation to build upon.			
a. REACHING YOUR POTENTIAL BY DEVELOPING EXPERTISE IN SEWING MORE SPECIALTY FABRICS.	Increases your ability to perform tasks efficiently, accurately, and rapidly.		
b. TRAINING OR RETRAINING. Keep up-to-date by reading new clothing construction books and fashion and sewing magazines. Attend workshops and refresher courses. Learning new techniques and approaches helps you, your customers and your business.	More knowledge to perform.		

Human Resources	Potential Returns	Cost to You (time and money)	Potential Payoff Worthwhile?
KNOWLEDGE With experience or association, one becomes aware and familiar with the necessary background to run a home based business.			
a. UNDERSTANDING OF CONCEPTS, PRINCIPLES, INFORMATION. You must be able to work smarter, not harder, achieve results, not just get things done.	Helps improve decision making.		
b. APPLY YOUR KNOWLEDGE TO BUSINESS/FINANCE/RECORD-KEEPING. A home based business allows you to grow with the business. As it expands so does your knowledge and experience.	Increased profits through better management.		
PHYSICAL ABILITIES A person in home based business needs to be physically able to perform a variety of tasks.			
a. PHYSICAL CAPACITY, STRENGTH AND COORDINATION. Maintaining physical stamina helps increase business production. Manipulating fabric or sewing equipment requires hand-eye coordination.	Increase capacity or proficiency.		
MENTAL ABILITIES Natural talent or acquired proficiencies in a home based business are often what has stimulated person to develop a home based business.			
a. BASIC INTELLIGENCE, CREATIVENESS, INNOVATIVENESS AND LOGICAL THINKING. Use your natural talents to the fullest capacity.	Increase ability to market products. Create new or better products and services.		
ATTITUDES A positive attitude in a home based business provides daily impetus to keep the business growing.			
a. AMBITION--WORKING TOWARDS A GOAL. Self-esteem and confidence--knowing your abilities. Working with others. Like most people, you have potential you don't know exists. Sometimes situations occur in life that present challenges. When individuals meet these challenges they are often surprised at themselves. Starting a home based business has helped many people experience that same feeling. You will never realize your potential. You will never know what you can accomplish unless you try.	Helps improve current situation.		

AN EXPLORATORY STUDY OF SEX ROLE AND SELF PERCEPTION EFFECTS ON SPOUSAL REPORTS OF INFLUENCE IN FAMILY RECREATION DECISION MAKING

Joel Rudd, University of Arizona[1]
Christine R. Koehler, University of Massachusetts[2]

This paper briefly describes the theoretical background for and presents some preliminary results from an exploratory study of spousal reports of influence in consumer decision making. The study tests a model that includes three factors expected to affect husband and wife reports of spousal decision influence in family recreation decision making. The three factors include 1) sex role norms, 2) stage in decision making process, and 3) self perception processes (see Figure 1).

Among the factors affecting the accuracy of husband and wife reports of decision influence is the operation of sex role norms (4). For many decisions, normative expectations associated with gender appear to produce a vanity bias in husbands' responses and a modesty bias in wives' responses. That is, when traditional sex-role norms are operating, husbands report themselves to have had more decision making influence than wives assign to them (vanity) and wives report themselves to have had less decision making influence than husbands assign to them (modesty).

The stage in the decision making process, in this context, refers to the time when researchers intervene to pose their questions. As has been frequently pointed out, family decision making is a multi-stage process (5). Researchers have yet to measure influence across the last two stages in the decision making process: the decision itself and post-decision evaluation. The latter stage is of critical importance to future decision making: it is in this stage that the positive or negative feedback affecting future decision making is generated (13). It is argued here that this stage also provides feedback through the self perception process, affecting spousal reports of decision making influence.

The major purpose of this exploratory study is to measure spousal reports of decision influence in a seldom-used context: family recreation decision making. The study attempts to determine the extent to which spousal reports of recreation decision influence are affected by sex role norms across the "decision" and "post-decision evaluation" stages of the decision making process. Specifically, the study measures influence reported by husbands and wives for a recreation decision before and after acting on that decision. Because of the exploratory nature of the study, this paper will also report, in some detail, the characteristics of the sample and the degree of husband-wife congruence in reported decision influence.

Sex Role Norms

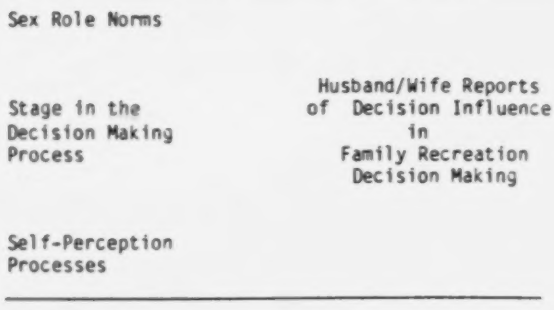
Previous studies (14) conclude that sex role norms affect how families make decisions. However, sex role norms may also affect how "truthfully" respondents answer questionnaires. Davis and Rigaux (4) suggest that both modesty and vanity biases may operate for either or both spouses. Respondents affected by these biases shade their spousal influence reports to reflect social sex role norms.

Several researchers have put forth sex role norms as a possible explanation for incongruency in spousal reports of decision influence (e.g., 16). Most studies in which data was collected from both spouses reported that wives perceived their husbands as more influential than husbands perceived themselves (3, 11, 12)

Self-Perception Theory and Spousal Influence

Self-perception theory, a variation of attribution theory, was developed by Bem (1) as an explanation for attitude change. In the theory, persons are presumed to explain their own behavior much in the same way that outside observers do: by observing their own behavior. Bem suggested that if external circumstances seemed sufficient to account for behavior, individuals would not use the behavior as a basis for belief change (for example if someone were paid money). However, when those external factors aren't apparent, the individual is more likely to realign his/her beliefs with the observed behavior to justify causation. When these concepts are applied to influence in a family decision, it is possible to see that if a post-decision experience is evaluated by a spouse, he/she will attribute his/her feelings (greater or lesser satisfaction) to his/her attitudes about how the decision was made.

FIGURE 1. The Model


Sex Role Norms
Stage in the Decision Making Process
Self-Perception Processes
Husband/Wife Reports of Decision Influence in Family Recreation Decision Making

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Because individuals want their attitudes to be congruent with their behavior, they will change their perception of how the decision was made to reflect their behavior by reporting increased or decreased participation (17). We would thus predict that the more positive the post-decision evaluation, the more decision influence a spouse will claim and, conversely, the more negative the post-decision evaluation, the less decision influence a spouse will claim.

Recreation Decision Making

Recreation decision making serves three valuable purposes for research in family decision-making. First, it has the potential to involve the entire family rather than only one spouse, and may include children if they are present in the household. Second, it is possible to design a study such that the recreation decision process has only recently been completed at the time of data gathering and thus, the process would still be fairly fresh in respondents' minds. Third, the recreation decisions are made voluntarily by families, unlike many purchase decisions used in prior research. The naturalistic quality of a recreation decision setting allows respondents to participate in the research with fewer constraints than may have been present in other studies that utilized durable good purchases.

Studies of recreation decision-making by Jenkins (9, 10) and Filiatrault and Richie (7) identified the balance of spousal influence in families and included children's influence as perceived by parents. The present study extends the work in family recreation decision making by testing the effects of sex role norms and self-perceptions on perceived spousal influence.

METHOD

Sample

This study surveyed families who arrived at the Mt. St. Helens Volcanic National Monument as a recreation destination during the months of June, July and August of 1984. The sample consisted of 193 couples who consented to participate in the study by separately completing brief questionnaires.

Design

A two-group quasi-experimental field design was employed (2). This design measures one sample prior to the experimental treatment (in this case, viewing the volcano) and measures an equivalent sample after the treatment. This design is superior to the True Before-After Design in that it controls for the interaction of testing with the experimental treatment and the effect of testing on the respondents (2, p. 53). Smith (15) commented that this design provides "... more assurance of external validity than any other experimental method," (p. 211).

Procedure

The pre-decision action measures were collected at "The Portal," (information area with parking, picnic area and restrooms) located just outside Mt. St. Helens National Volcanic Monument, from couples arriving to visit the Monument. This area was heavily used by tourists during the summer months. The post-decision action group data were collected in the Spirit Lake parking lot (the parking lot was bordered by a sheltered area with seats for the Forest Service interpretive programs, a short trail to the ridgeline viewpoint and restrooms). Spirit Lake represented the final destination of visitors to the Monument. Couples at this point were asked to participate as they returned to their vehicles from their walk to view the volcano and lake.

Couples participated in the study only if they had not visited the volcano since the eruption in 1980 (determined by directly questioning the potential respondents). The pre-decision action group (Portal) consisted only of couples who had stopped for information, thus excluding those who had already driven up to see the volcano and had stopped on their return.

The data were collected by a survey questionnaire administered separately to each partner in volunteer couples. Both spouses in each couple were given identical questionnaires and were asked to complete them without conferring. The researcher remained with the respondents as they completed the questionnaires.

The questionnaire was administered mornings and afternoons at alternating locations. However, because many tourists planned the visit as a one day trip, more stopped at the Portal during the morning hours and more could be found at Spirit Lake throughout the afternoon. Therefore, questionnaire administration was not balanced temporally between the Portal and Spirit Lake although the time spent in both locations was about the same.

The interviews were conducted on Fridays, Saturdays, and Sundays throughout the months of June, July, and August, 1984 during both morning and afternoon hours. Refusal rates were low, averaging three per day (about 12%). Refusals were slightly higher at Spirit Lake than at the Portal. The most common reason for refusing was lack of time.

Questionnaire

The questionnaire was developed to collect demographic information, weather and transit condition variables, spouses' reported recreation decision influence scores, and spouses' evaluation of the recreation experience (only for the post-decision group). Incongruency in spousal responses was measured by comparing the individual husband and wife responses.

Four demographic variables referred to individual characteristics of the respondents (age, education, occupation and sex); and three referred to the couple (income, number of children, and state of residence). The weather

and transit condition variables covered a range of conditions potentially affecting the couples' recreation experience. The type of vehicle used, travel distance, traffic conditions, parking availability and comfort in the vehicle were included in the questionnaire to asses their possible affects on the respondents. Respondents also indicated if any problems not mentioned had interfered with their plans to visit the volcano.

Relative influence in the recreation decision was measured by questions concerning the couple's decision to visit the national monument. A 10 point constant sum scale was used to measure spousal influence. The scale required that each spouse divide 10 points between self and spouse for each of the six recreation decisions. If children were present and the spouses felt that they shared decision influence, the children's share was reflected in the division of the points. Evaluations of the recreation experience were measured by questions concerning the positive or negative feelings the respondent had about the experience. Five point Likert scales were used for this measure.

Characteristics of the Sample

The Portal and Spirit Lake groups were similar in number (194 and 192 respondents respectively) and distribution across demographic variables. The Portal group consisted of 97 couples (37 with children). The Spirit Lake group consisted of 96 couples (27 with children). Table 1 presents the frequency and percentage distribution of demographic variables.

Some of the condition variables were less uniform across the two sample groups than were the demographic variables. Because some of the conditions could not be controlled by the researcher, the condition variables were examined to ensure that the pre- and post-decision action groups were comparable. By balancing the samples so that interviews were conducted under similar conditions (weather, transit, and day of the week) the potential effects of several interview condition variables were controlled. The frequency distribution for those variables not controlled can be found in Table 2. Some differences occurred for the availability of parking and traffic conditions, while other interview condition questions produced more uniform responses across the Portal and Spirit Lake groups.

Reliability and Validity

While the questionnaire utilized items similar to those used by Jenkins (10) and Filiatrault and Richie (7), the wording was original and specific to the Mt. St. Helens recration experience. The questionnaire was piloted to ensure that the questions would be correctly interpreted by the respondents, establishing face reliability.

The design of the study controlled for the potential internal validity problems of respondent maturation and sensitivity to testing

TABLE 1. Frequency Distribution for Demographic Variables (frequency) and percentage*

	Portal		Spirit	
Age	n=191		n=191	
20 or under	(0)	0	(0)	0
21 to 34	(41)	21	(35)	18
35 to 49	(74)	39	(82)	43
50 +	(76)	40	(74)	39
Education	n=188		n=189	
less than H. S.	(2)	1	(9)	5
graduate/some H. S.	(42)	22	(55)	29
college graduate	(74)	40	(69)	37
trade school	(12)	6	(8)	4
Occupation	n=185		n=187	
administrative/ professional	(67)	6	(65)	35
clerical	(20)	10	(13)	7
service or craft worker	(21)	11	(22)	12
homemaker	(34)	18	(38)	20
retired	(30)	16	(22)	12
other	(13)	9	(27)	15
Family Income	n=178		n=176	
-$4000 to $9999	(2)	1	(8)	5
$10,000 to $14,999	(21)	12	(14)	8
$15,000 to $24,999	(39)	22	(31)	17
$25,000 +	(116)	65	(123)	70
State of Residence	n=189		n=190	
Washington	(98)	52	(102)	54
Bordering states	(12)	6	(18)	9
Remainder of West	(18)	9	(12)	6
Midwest	(43)	23	(28)	15
South	(9)	5	(4)	2
Northeast	(7)	4	(20)	11
Foreign	(2)	1	(6)	3

*Percentages may not total 100% due to rounding.

because it used different respondents for the pre- and post-decision action groups. The selection of respondents was controlled by using only one interviewer and alternating the interview schedule between the groups.

The constant sum measure of influence was tested for reliability by Haley, Overholser and Associates (8) in their spousal influence study of product and brand decisions. Phase I of their study required respondents to first answer questions using the scale to divide family influence and then to reflect on their answers in a discussion. They were asked if they wished to reallocate the points. Very few subjects chose to do so, which demonstrated an understanding of the constant sum measure.

Special Permission

The U.S. Forest Service districts of Saco River, Randle and Mt. St. Helens gave their verbal consent for the study. Written permission was received prior to the interviews from Mt. St. Helens District in Washington, the principal contact for the study. Both questionnaires were reviewed by the respective districts.

TABLE 2. Frequency Distribution for Condition Variables (frequency) and percent*

	Portal		Spirit	
Travel Distance	n=187		n=185	
less than 20 mi.	(8)	4	(1)	1
21 to 50 mi.	(22)	12	(23)	12
51 to 100 mi.	(82)	44	(04)	56
101 to 150 mi.	(41)	18	(14)	8
Parking Conditions	n=191		n=191	
no problem	(183)	95	(168)	88
some difficulty	(8)	4	(23)	12
very difficult	(1)	1	(0)	0
Traffic Conditions	n=193		n=192	
light	(125)	65	(54)	28
moderate	(63)	33	(107)	56
heavy	(5)	2	(31)	16
Problems	n=114		n=114	
automobile	(12)	11	(10)	9
accommodations	(3)	2	(5)	4
cost	(8)	7	(6)	5
physical discomfort	(10)	9	(10)	9
weather	(18)	16	(5)	4
interpersonal	(5)	4	(3)	3
other (none)	(58)	51	(75)	66
Accommodations Used	n=148		n=121	
hotel, motel	(47)	32	(26)	21
with relatives	(34)	23	(35)	29
camping	(67)	45	(60)	50
Vehicle Type Used	n=193		n=192	
automobile	(130)	67	(123)	64
truck	(26)	14	(27)	14
van	(16)	8	(17)	9
recreation vehicle	(17)	9	(17)	9
motorcycle	(0)	0	(8)	4
other	(4)	2	(0)	0

*Percentages may not total 100% due to rounding.

RESULTS AND DISCUSSION

The major findings of this this exploratory study of family decision making in a recreation context are:

(1) husbands and wives tend to report equal influence in recreation decisions;

(2) husbands are perceived to be slightly more influential in choice of destination and transportation, while wives are perceived to be slightly more influential in meal planning;

(3) congruence between husband and wife reports of decision influence was moderately high, however both modesty and vanity biases were also evident;

(4) modesty biases (wife attributes more influence to husband than he attributes to himself) tended to be more frequent than vanity biases (husband attributes more influence to himself than wife attributes to him);

(5) only among wives without children did a positive correlation occur between evaluations of the decision action and reported influence.

This study was based on the premise that reported influence would change after the decision action: If the experience had been positive, the respondents would claim more influence than before the experience. Decision influence was seen on a continuum from spouse dominant, through joint, to self dominant. A joint decision as measured in the Spirit Lake group may in fact have been reported as spouse dominant had the respondent been measured prior to the decision action. When decision influence was measured, a joint decision would be considered merely at the mid-level of influence although it could have resulted from a high evaluation. The reverse would also have been true for negative experiences causing dominant influence to change to joint influence. The questionnaire and response design were not sensitive enough to measure this occurrence.

The decision action groups would need to be redefined to clearly reach families prior to and following the implementation of their recreation decisions. The evaluation measures may need to be taken after the experience has been completed for some time, perhaps after respondents have returned home. It is in that respondents may have been asked to report relative influence in a decision when in fact neither spouse may have been influential in that decision. The influence may have instead been exerted by an outside force. For example, a recreation decision may be contingent upon children being released from school, a workplace closing for a summer break. The influence in these cases may have been attributed to the family member most closely associated with the outside force, either child or spouse.

A closely associated concept is the relevance of the decision. This concerns the respondent's ability to conceptualize the potential alternatives that were either not suggested or rejected at the time of the decision. Respondents were required to determine influence in choices of transportation, accommodations and meal plans. These choices may have been more relevant for a respondent who had considered and rejected the possibility of a helicopter flight in the area than for a respondent that had not realized that flights were even available.

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LEARNING AND CONSUMER DECISION-MAKING STYLES: THEORETICAL AND RESEARCH CONSIDERATIONS

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Abstract

This paper briefly summarizes results of a research program which has developed new measures of individual learning styles and consumer decision-making styles. This research has also identified important relations between individuals' learning styles and their specific consumer decision-making.

Consumers' general learning styles and their specific consumer decision-making styles are important and significantly related phenomena. However, research has only recently begun to examine these relationships. The purpose of this presentation at the conference was to introduce new approaches to investigating learning and consumer decision-making characteristics, and associations among these characteristics.

First, we introduced the concept of learning styles. Learning style refers to the way a learner mentally absorbs new information. Based on experiential learning theory, the authors have developed a Secondary Learning Styles Inventory (1986). This Inventory has been validated as a measure of six characteristics of learning styles: (a) serious, analytical learner; (b) active, practical learner; (c) observation-centered learner; (d) passive, accepting learner; (e) concrete, detail, fact-oriented learner; and (f) non-adaptive, struggling learner. Details of this have been previously published elsewhere (1).

A consumer decision-making style is a mental orientation characterizing a consumer's approach to making consumer choices. A new method for measuring decision-making styles has been developed (3), the Consumer Styles Inventory and the Profile of Consumer Styles (1986). This methodology has validated eight characteristics of consumer decision-making: (a) perfectionistic, high quality conscious consumer; (b) brand conscious, price equals quality consumer; (c) novelty-fashion conscious consumer; (d) recreational, hedonistic consumer; (e) price conscious, "value for money" consumer; (f) impulsive, careless consumer; (g) confused by overchoice consumer; and (h) habitual, brand loyal consumer. A short form test of these characteristics has also been developed (4).

There are important interrelations between consumers' learning styles and related decision-making styles. Research findings indicated substantial significant relations between learning and consumer decision-making characteristics for 25 of 48 characteristic relations (2). For example, perfectionistic consumer decision-making was found associated with serious analytical learning, active and practical learning, and observation-centered learning; in contrast, the impulsiveness consumer characteristic was found strongly associated with non-adaptive, struggling learning characteristics. Such findings have important implications for development of consumer education and information programs.

Also note that the development and validation of the Secondary Learning Styles Inventory and the Consumer Styles Inventory are important end results of this research in themselves. Consumer educators should apply such measurement methodologies in their classes, and seek out relations between the learning styles and consumer styles of their students (see the references cited for details on the measurement methodologies and classroom applications). Those methodologies allow us to profile the individual learning and consumer decision-making characteristics of students, and to educate students on their particular strengths as well as areas needing modification. Ultimately such measures will help educators develop consumer educational and informational strategies that are less normative or prescriptive, and based more on positive understanding of the human learning process and the particular characteristics that consumer decision-makers bring to their decisions.

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CONTENTS OF WESTERN REGIONAL PROCEEDINGS, 1970-1979 (What Did We Report?)

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Abstract

This paper describes a content analysis of 149 papers included in the ten annual conference Proceedings of the Western Regional College Educators' of Home Management-Family Economics from 1970 through 1979. Entire papers were selected as the unit of analysis, and the annual number of papers ranged from 11 to 20. Papers were classified independently by the two investigators according to their content, subject matter, fit into the management framework, purpose, and basic disciplines on which the content was based. Research papers were also classified according to the method of data collection. Tabulation of the 10 years of scholarly endeavor revealed a subject matter, rather than research or teaching emphasis in two-thirds of the papers and a resource management/home management emphasis within subject matter papers. Possible reasons for the trends are explored within the paper.

This paper describes an analysis of contents of Western Regional Home Management-Family Economics Educators' Proceedings for the ten annual meetings held from 1970 through 1979. These proceedings are a major document of the organization. They indicate the commitment of presenters to specific content, processes, or occupational emphasis. Because the proceedings are available for sale, they provide educators in home management and family economics with perspectives regarding issues, teaching methods, and content that can be relevant to their work. These papers provide students and professionals in other fields with perspectives regarding the organization's interests and priorities. Assessment of the contents of the proceedings therefore, can be valuable to the organization to note historical trends and to consider alternatives for the future. It also complements the broader assessment of the organization that Plonk (1979) did in preparing us for the decade of the 1980s.

Content analysis was the method selected to describe the Western Regional proceedings. This method has been used to examine textbooks and popular magazines in the area of home management (Williams & Nickols 1981; Shaner 1985) as well as other fields. Its purpose is to provide a "systematic and quantitative description of the manifest content of communications" (Berelson 1971).

Methodology

Content analysis is a procedure to reduce the volume of communication into meaningful categories. In this regard, researchers are presented with a number of decisions concerning the unit of analysis, the construction of categories, and the reliability of coding (Stempel 1981).

Unit of Analysis

An entire paper was selected as the unit of analysis for this study. Although reliable coding can be problematic for such a large unit, each paper or article generally contained a single theme which was not always reflected in the title of the paper (Weber 1985). Words, titles, sentences, or paragraphs are units that could be analyzed for other purposes.

Discussant papers, introductions to or summaries of conferences, and recorders' summaries of discussion groups were excluded from analyses, as these repeated content of other papers or were included in the proceedings because of the chosen conference format. With those exceptions, the entire population of papers was examined.

Construction of Categories

Categories were constructed to describe the content, fit into a model, purpose, and basic discipline on which the paper was based. The researchers assumed that the classifications within the categories would be unique, but that a paper could emphasize more than one category.

Contents. Content was represented in three primary categories: teaching, research, subject matter. Teaching (pedagogy) included papers that focused on descriptions, philosophies, or qualities of disseminating knowledge in a formal or informal "teaching" environment. These papers could include a subject matter emphasis or be free of subject matter.

Research is a category of contents that focused on descriptions, philosophies, or qualities of developing knowledge or the role of the investigator. Papers in this category would typically be free of subject matter and not report on specific research projects.

Subject Matter. Subject matter is a category of contents that focused specifically on knowledge within the fields of home management and family economics. It was further classified into one of three areas: home or resource management, family finance or economics, and consumer. Indexes of textbooks and concept classifications in these three recognized fields were used to develop lists of specific terms or concepts that represented the major categories.

Fit into Model. A management framework (Rice & Tucker 1986) was used to classify the treatment of topics or variables in the paper. Components

of the framework were grouped into three major categories--inputs, outputs, and throughputs--with families or households as the primary emphasis of the framework. Presenters need not have used specific systems terminology to have the paper assigned to a category. A "does not apply" category was used for papers that were not built upon the management framework or were so general that classification was precluded.

Purpose of the Paper. The major intent of each of the papers was described as the purpose of the paper. The six initial classifications included reviews of literature, descriptions of a teaching technique, position papers presenting or advocating a certain perception or behavior, program or project evaluations, research, and an "other" category. Because of the number of papers describing programs or projects, a seventh category was added for that purpose.

Reports of research--including program and project evaluations-were further classified based on methodologies used in data collection. Papers using secondary data were categorized according to the original data collection. The seven original categories ranged from one time, small sample surveys to experimental designs.

Basic Discipline. Basic disciplines are those upon which the position, framework, or perspective of the paper was developed. Multi-disciplinary papers were categorized in more than one discipline or in integrated categories, such as social sciences or public policy. The content and the sources cited in the paper were used to identify these basic disciplines.

Coding of Papers

Coding sheets were developed to represent the above categories (Figure 1). Each paper was read and coded separately by the two investigators. Inter-coder reliability exceeded 95 percent--indicating agreement about the meaning of the previously described categories. Differences of opinion were resolved through reexamination of the paper in question and discussion of the bases for assignment to categories. Annual summary sheets were developed for the categories and a limited number of cross tabulations were developed.

Findings

In the decade of the 70s, the proceedings included 149 papers that were used for this analysis. The annual number of papers ranged from a low of 11 in three of the ten years to a high of 20 papers in 1974. If any trend can be identified it would be that the number of papers was more likely to exceed the ten year average ($x = 14.9$) in the latter one-half of the decade (Table 1).

The papers were classified as one of three content types--those dealing primarily with subject matter--resource or home management, family finance or economics, and consumer topics--and those dealing with instruction or research in terms of knowledge dissemination and development. The reporting of a specific research project was classified by its subject matter content while a paper on the importance of research to the field was classified as research. Two-thirds of the papers were subject matter content. Slightly more than one-quarter of the papers dealt with instruction and 5 percent gave a perspective on research. In seven of the ten years, more than one-half of the papers were subject matter in nature. In two (1973 and 1976 of the remaining three years (1970, 1973 and 1976), teaching papers were most common. In 1970, the mix of articles was most balanced with about one-third in each of the three classifications.

TABLE 1. Annual Frequency and Cumulative Totals of Subject Matter, Instruction, and Research Papers in the Proceedings, 1970-79.

Year	All		Subject Matter		Instruction		Research	
	#	Total	#	Total	#	Total	#	Total
1970	15	15	5	5	6	6	4	4
1971	11	26	8	13	2	8	1	5
1972	12	38	12	25	0	8	0	5
1973	11	49	5	30	5	13	1	6
1974	20	69	14	44	6	19	0	6
1975	18	87	10	54	7	26	0	6
1976	11	98	5	59	6	32	0	6
1977	16	114	15	74	1	33	0	6
1978	16	130	14	88	2	35	0	6
1979	19	149	11	99	7	42	1	7
Percent of Total (149)				66.4		28.2		4.7
Range	11-20		5-15		0-7		0-4	
Mean	14.9		9.9		4.2		0.7	

In six of the 10 years, there were no articles with research as a topic. Four of the seven research topic papers were in 1970. Teaching topic papers have varied in number from zero to seven with most years having at least five papers on teaching topics.

One or more of the three subject matter classifications were found in four-fifths of the papers. Resource management/home management was emphasized in almost 60 percent of the papers ($n = 120$) having subject matter content (Table 2). The frequency of this subject matter category equalled or exceeded that of family finance/economics or consumer topics in all but two years--1972 and 1977. Family finance/economics subject matter was present each year except 1978, with an annual average of 2.5 papers. Only in 1972 were consumer topics the most frequent. In 1974 and 1977, the mix of subject matter emphases was most balanced, with about one-third in each category.

Approximately two-thirds of the papers ($n = 103$) were classified within a management framework. Examination of Table 3 reveals that

inputs were emphasized in two-thirds of these papers and most frequently in nine of the ten years. The mental processes and activities of throughput were emphasized in one-fifth of the papers and were most frequent in 1971 and 1978. The output category was present in about one-eighth of the papers, and these papers were generally in the resource management/home management subject category.

TABLE 2. Annual Frequency and Cumulative Totals of the Subject Matter of the Papers in the Proceedings, 1970-79.

Year	Resource/ Home Management		Family Finance/ Economics		Consumer Topics	
	#	Total	#	Total	#	Total
1970	3	3	3	3	1	1
1971	10	13	2	5	0	1
1972	0	13	1	6	11	12
1973	6	19	2	8	1	13
1974	8	27	5	13	4	17
1975	12	39	2	15	0	17
1976	7	46	1	16	1	18
1977	4	50	5	21	5	23
1978	14	64	0	21	0	23
1979	7	71	4	25	1	24
Percent of Total (120[1])		59.2		20.8		20.0
Range	0-14		0-5		0-11	
Mean	7.1		2.5		2.4	

[1]A paper could be in more than one category.

Of the six purposes identified for the papers, position papers were the most frequently observed (Table 4). These papers generally advocated specific perceptions, views or behaviors and were 40 percent of the total. Research reports and program descriptions each accounted for 20 percent of the total. Of the research reports, one-third occurred during the first one-half of the decade, and two-thirds were included in or after 1975. Program descriptions included summaries of other conferences as well as programs of study and averaged two per year. Two-thirds of these were presented in the period 1972 through 1975. Descriptions of teaching techniques were the purpose of 11 percent of the papers, and one-half of those papers were presented in 1974 and 1975. Reviews of literature and the "other" category together accounted for less than 10 percent of the papers.

Of the 32 papers reporting research, 76 percent used a one-time, large sample survey ($n > 50$) (Table 5), two-thirds of these were in 1977 through 1979. Three research papers used case studies to gather data, and two used small samples ($n < 50$).

Table 3. Annual Frequency and Cumulative Totals of the Framework Components of the Papers in the Proceedings, 1970-79.

Year	Inputs		Throughputs		Outputs	
	#	Total	#	Total	#	Total
1970	3	3	0	0	2	2
1971	3	6	6	6	0	2
1972	8	14	3	9	0	2
1973	2	16	1	10	0	2
1974	11	27	0	10	2	4
1975	5	32	2	12	3	7
1976	6	38	0	12	0	7
1977	12	50	1	13	2	9
1978	10	60	5	18	3	12
1979	9	69	3	21	1	13
Percent of Total (103)		67.0		20.4		12.6

The basic discipline that was most frequently cited in papers was home economics (Table 6). It was used in two-thirds of the papers. Social sciences were applied in one-fifth or 32 of the papers. Public policy and education were next in frequency. Economics and computer/technology were the basic disciplines in an average of one paper a year, and health and rehabilitation was the discipline that was applied only in 1975. Conference themes and field of presenters tend to relate to the concentration of a discipline in any one year.

Discussion

There was an increase in the number of papers presented during the 1970s, and there are a number of possible reasons for this trend. Pressures for faculty publications increased during the decade. The introduction of the Western Regional Newsletter in 1971 also provided more educators with information about upcoming meetings (Plonk 1979). It is also likely that the numbers of home management-family economics educators increased during the decade and as enrollments increased these people had greater portions of their assignments in the field.

The Western Regional organization emphasized the teaching of home management during the 1960s,

TABLE 4. Annual Frequency and Cumulative Totals of the Purposes of the Papers in the Proceedings, 1970-79.

Year	Position Paper		Research		Program Description		Teaching Techniques		Review of Literature		Other	
	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total
1970	13	13	0	0	0	0	0	0	2	2	0	0
1971	7	20	4	4	0	0	0	0	0	2	0	0
1972	4	24	1	5	6	6	1	1	0	2	1	1
1973	4	28	0	5	5	11	1	2	0	2	0	1
1974	6	34	5	10	4	15	5	7	0	2	0	1
1975	4	38	3	13	6	21	4	11	2	4	0	1
1976	7	45	1	14	2	23	1	12	0	4	0	1
1977	5	50	4	18	2	25	1	13	2	6	2	3
1978	6	56	8	26	1	26	1	14	1	7	0	3
1979	4	60	6	32	6	32	2	16	0	7	2	5
Percent of Total (152[1])		39.5		21.1		21.1		10.5		4.6		3.3

[1]Total exceeds 149 as some papers fit into more than one category.

and this emphasis continued into the 1970s (Plonk 1979). If an organization is known to have a specific disciplinary focus, papers with that focus are likely to be invited or submitted in the future. The subject matter was also in flux at the time: alternatives to live-in residence facilities were explored, students challenged the relevance of the subject matter, and at times, new and, conflicting theoretical models were developed and tested.

During the 1970s, the subject matter areas expanded to include a consumer emphasis, but in spite of increased attention to national consumer policy, there were few papers representing this content area during the decade. Consumer educators had other outlets for their papers, both conferences and journals. One also can ask if fewer home management-family economics educators were working with consumer topics, or if consumer educators were less likely to present papers?

The emphasis on inputs within the managerial framework is easily understood. Resources and demands are not simple. But, with the exception of values, they are more easily quantified and discussed. Throughput was being clarified during the decade, and measures of output may have seemed overwhelming during most of the decade. The study of time in home production is a prime example.

Papers emphasizing teaching outnumbered those with research content during the decade, as might be expected with an educators' group. The frequency of research reports did increase during the 10 years, with large sample surveys being the primary methodology. The introduction of graduate students' presentations and a research award during the decade also indicated an increased commitment to the development of knowledge (Plonk 1979). It is not known if a greater number of faculty actually had research appointments or if expectations for research productivity made the difference.

The disciplines upon which papers are based are likely to be influenced by the authors' background, coworkers, current interests and conference themes. Because of the number of speakers invited to meetings from other disciplines and from outside the geographic boundaries of the West, the basic disciplines and the entire content analysis are not solely reflective of the group's membership. These invited speakers, are however, a reflection of the interests and resources accessible to conference planners. With that in mind, findings did show that home economics was the most frequently used basic discipline during the decade. During the 1970s, it is likely that the majority of Western Regional attendees were trained and employed in home economics units. Will this trend continue in the future, and it is desirable or undesirable?

The development and use of content analysis for the 1970s' proceedings has laid the groundwork for continuing this effort on a more regular (but not necessarily annual) basis. The content analysis instrument (Figure 1) can also be used by conference planners to quickly view the program that is developed for focus or balance in view of themes, objectives and organizational purposes.

An analysis of the 1980s will likely reflect additional changes. The process of reviewing papers before their inclusion should relate to

TABLE 5. Annual Frequency and Cumulative Totals of the Research Methodologies Used in the Papers in the Proceedings, 1970-79.

Year	Large Sample		Case Studies		Small Sample		Content Analysis[1]		Participant Observation		Longitudinal	
	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total
1970	0	0	0	0	0	0	1	1	0	0	0	0
1971	2	2	1	1	1	1	0	1	0	0	0	0
1972	0	2	1	2	0	1	0	1	0	0	0	0
1973	0	2	0	2	0	1	0	1	0	0	0	0
1974	4	6	1	3	1	2	0	1	0	0	0	0
1975	2	8	0	3	0	2	0	1	0	0	0	0
1976	1	9	0	3	0	2	0	1	0	0	0	0
1977	4	13	0	3	0	2	0	1	0	0	0	0
1978	7	20	0	3	0	2	0	1	0	0	1	1
1979	5	25	0	3	0	2	0	1	1	1	0	1
Percent of Total (33)		75.6		9.9		6.1		3.0		3.0		3.0

[1] Approach used in a review of literature paper.

TABLE 6. Annual Frequency and Cumulative Totals of the Basic Subject Matter in Papers in the Proceedings, 1970-79.

Year	Home Economics		Social Sciences		Public Policy		Education		Economics		Computer/ Technology		Health/ Rehabilitation		Business	
	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total	#	Total
1970	8	8	1	1	1	1	2	2	1	1	2	2	0	0	1	1
1971	6	14	6	7	0	1	1	3	1	2	0	2	0	0	0	1
1972	8	22	0	7	2	3	2	5	0	2	0	2	0	0	2	3
1973	7	29	2	9	0	3	3	8	0	2	1	3	0	0	1	4
1974	10	39	3	12	6	9	2	10	3	5	0	3	0	0	0	4
1975	17	56	4	16	1	10	2	12	1	6	0	3	5	5	0	4
1976	8	64	2	18	0	10	4	16	3	9	1	4	0	5	0	4
1977	8	72	3	21	7	17	0	16	0	9	2	6	0	5	0	4
1978	12	84	8	29	2	19	1	17	1	10	1	7	0	5	0	4
1979	15	99	3	32	7	26	4	21	1	11	0	7	0	5	0	4
Percent of Total (205)		48.3		15.6		12.7		10.2		5.4		3.4		2.4		2.0

some of these changes. Alterations in society and in higher education will bring about others. The importance of conference planners in inviting speakers and establishing conference themes is likely to continue to affect the direction of the organization's output.

In conclusion conference planners are urged to consider the balance in content, subject matter, and purposes of proposed papers, as well as the quality of planned presentations. Members should consider elements of knowledge that may currently be missing or under-reported as well as the

desirability of a specific methodology for a specific purpose. Further examination of research reports for the statistical techniques used would give a more complete profile of research sophistication. The examination of other disciplines' perceptions regarding a chosen topic would enable authors to develop and refine our applied fields. Using this content analysis, the writings of Plonk (1979) and the newly compiled author and title index of the 1970s' proceedings, Western Regional Home Management-Family Economics Educators can better use our past efforts for future development of the field.

FIGURE 1. Content Analysis Instrument

Year _____ Pages ____ - ____

Subject Matter _____

Discipline
___ 1 Resource management/home management
___ 2 Family finance/economics
___ 3 Consumer

Fit into model

___ 00 Does not apply	___ 11 Throughput--gen.
___ 01 Input, general	___ 12 Decision making
___ 02 Resources	___ 13 Communicating
___ 03 Events	___ 14 Values & valuing
___ 04 Goals and needs	___ 15 Goal formation
___ 05 Environments	___ 16 Feedback
___ 06 Output--general	___ 17 Planning-general
___ 07 Waste	___ 18 Sequencing
___ 08 Quality of life	___ 19 Standard setting
___ 09 Lifestyle	___ 20 Implementing
___ 10 Household product	___ 21 Checking
	___ 22 Adjusting

Purpose of paper
___ 1 Review of literature
___ 2 Description of teaching technique
___ 3 Position paper
___ 4 Program/project evaluation
___ 5 Research
___ 6 Other _____

Methodology
___ 0 Does not apply
___ 1 Small sample survey (n < 30)-one time
___ 2 Large sample-one time
___ 3 Case studies
___ 4 Participant observation
___ 5 Content analysis
___ 6 Longitudinal survey
___ 7 Experimental design
___ 8 Other _____

Basic discipline emphasized

___ 01 Home economics	___ 08 Health/rehab.
___ 02 Anthropology	___ 09 History
___ 03 Art, aesthetics	___ 10 Natural sciences
___ 04 Business	___ 11 Philosophy
___ 05 Economics	___ 12 Political sci.
___ 06 Education	___ 13 Psychology
___ 07 Engineering, computer sciences, other technology	

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REPORTED EXPENDITURES OF UNIVERSITY UNDERGRADUATES

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Abstract

Undergraduates' expenditure data were analyzed to determine non-tuition costs of attending a state university. Of these, one-half was spent on living expenses and one-fourth each on personal and auto/education/miscellaneous expenses. Sample subgroups'costs were found to be significantly different. By residence, students living alone off-campus had the highest mean total expenditures. Males had significantly greater total costs than females. Of academic groups, professional majors' mean total costs were highest.

Introduction

Financial barriers are a major factor affecting student access, choice, and retention at post-secondary institutions of education (Chira, 1982; Hendricks & Gersmehl, 1981; Hills & Van Dusen, 1982; Manske & Fuller, 1981). Costs for a four-year college education at the nation's public colleges and universities are rising faster than students' and families' abilities to meet them (Gillespie & Carlson, 1983). Students and their families report a lack of information that would enable them to identify and understand all of the costs associated with attending college (Van Dusen & Nelson, 1976).

Little definitive data are available on the costs of attending a particular post-secondary institution for any one academic year. Direct or fixed dollar amounts paid for tuition and fees, are easily recognized costs commonly associated with attending college. Such direct cost information has been available annually from institutions for comparative use (Case & Jacobsen, 1979; National Center for Education Statistics, 1980; Ryan, 1981; Viehland & Kaufman, 1982). Additional costs of attending a specific post-secondary institution, (for example food, transportation, utilities, books and supplies, and entertainment) are neither easily recognized nor traced over longer periods of time (Gillespie & Carlson, 1983).

Furthermore, relatively little empirical research has been conducted at individual institutions to determine what students spend on budget items, or whether or not the level of expenditures varies with select variables, to explain variations in expenditures levels (Makey et al., 1979; Hendriks and Gersmehl, 1981; Corwin & McIver, 1981). Knowing the costs that students incur and what factors are related to differences in levels of spending, administrators could develop student expense budgets to reflect more accurately the costs of attending their institution during a given academic year. All costs and items for which students spend money must be anticipated and planned for in a student expense budget, whether or not the expenditures are allowable under financial aid rules and regulations.

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Purpose and Objectives

The purpose of this study was to analyze expenditure data collected from resident undergraduate students to determine the costs exclusive of tuition and fees of attending Oregon State University. Specifically, the objectives were to determine (1) the range of expenditures; (2) measures of central tendency for expenditures in five separate budget categories; and (3) identify any differences in expenditures between sample subgroups when divided by selected demographic variables.

Detailed data were obtained regarding the expenditure range, and the apportionment of income to various categories. Since the direct costs of tuition and fees are easily determined and did not vary within the population studied, they were not included as expense items in the investigation. Source and level of income were not analyzed.

Methodology

The sample consisted of all students registered in the personal finance classes conducted by the College of Home Economics at Oregon State University during the 1980-1981 academic year. Over a three-term period, a total of 418 students were required to keep personal expense diaries for a two month period. Of the 418 diary responses, 349 or 83.5 percent were usable for analysis purposes. Dia- ries were classified as unusable if students indicated (1) enrollment of less than 12 quarter hours, (2) married status, (3) having dependents, or (4) freshmen, graduate, or post-baccalaureate academic class standing. Of the study participants, 177 (50.7%) were classified as seniors, 120 (34.3%) as juniors, and 52 (14.9%) sophomores. Over three-fourths of the respondents (271 or 77.7%) were female and 77 (22.1%) were male.

For analysis, the students' academic majors were divided into the following four categories: education (117 or 33.5%), home economics (109 or 31.2%), professional (including majors such as engineering, business administration and medical-related fields of study) 65 (18.6%), and general (including liberal arts and exploratory

studies) 55 (15.8%). Students' housing choices were grouped into five categories by similarity of living arrangements: 1) sharing an apartment or house (160 or 46.8%), 2) dormitory or student cooperative (81 or 23.2%), 3) sorority (70 or 20.1%) 4) living alone in apartment or home (25 or 7.2%) and 5) fraternity (13 or 3.7%). Sample sizes for students living in other types of housing were too small to produce meaningful results.

Instrument

The instrument (expense diary) used to collect the data for this study was developed by the personal finance course instructor from a review of standard budget information previously used in class assignments. It was pilot-tested and revised with student input.

Survey instruments were distributed to students at the beginning of each term with a set of written instructions. Instructions for keeping the expense diary were also given orally in class. Each participant kept a weekly financial record of expenses for the two-month period starting the first week of the term.

Data Analysis

Descriptive statistics were used to summarize the budget categories and demographic characteristics of the sample. Analysis of variance (ANOVA) was used to determine how mean expenditure levels varied with the demographic and situational characteristics of the students. The Scheffe Multiple Comparison method was used to determine the source of the difference where significance was revealed by the ANOVA.

Results

The researchers used 27 budget components (listed in Appendix A) to determine the costs incurred by full-time resident undergraduate students. Related expenditures from the 27 groups were categorized into living, educational, automobile, personal, and miscellaneous expenses. The first and second months expenditures were averaged for expenditure data discussion and analysis.

Total Monthly Expenses

As defined, total expenses were composed of the following five budget categories: (1) living expenses, (2) educational expenses, (3) automobile expenses, (4) personal expenses, and (5) miscellaneous expenses. The sample mean for total monthly expenses was $361.13 within a range of $29 to $1,561 per month (Table 1).

The mean total expenditures of sample subgroups divided by college residence, sex, academic major, and class standing were compared using separate One-Way Analyses of Variance. Significant differences were found in sex of student ($F(1,348) = 6.634$, $p \leq .05$), academic major ($F(3,345) = 3.135$, $p \leq .05$), and college residence ($F(4,348) = 2.44$, $p \leq .05$), (see Tables in Appendix B). Male students outspent female students. Application of the Scheffe Multiple Comparison process revealed that total monthly expenditures were significantly higher for professional majors than the general majors. The procedure did not detect differences among residence groups, however.

Males spent an average of $402.60 per month for total expenses, compared to the mean of $349.39 for females. Senior students ($377.18) outspent juniors ($346.05) and sophomores ($341.30). The mean total expenditures for professional majors ($413.55) was the highest among the majors, compared to that of general majors ($329.30) whose mean was the lowest. The means for home economic ($355.70) and education students ($355.47) were similar. Students living alone in an apartment or house reported the highest mean monthly total living expenses ($420.86), followed by fraternity residents ($409.08), apartment or house mates ($369.11) and sorority members ($351.14). The mean for students living in dormitory or cooperative housing was the lowest ($322,70).

Living Expenses

Living expenses included the following budget components: rent, room and board, food prepared at home, food eaten away from home, telephone, utilities, trash removal and cable TV. The group mean for monthly living expenses was $195.75, which represented 53 percent of the mean total monthly budget ($361.13). Monthly living expenditures ranged from $1 to $629.

Comparing the mean monthly living expenses of sample subgroups, only in college residence was a significant difference found ($F(4,347) = 6.046$, $p \leq .001$). The Scheffe test indicated that the mean living expenses for students living alone in off-campus housing ($257.68) was significantly higher than that of students living in fraternities ($213.27), shared apartments or houses ($198.05), sororities ($195.31) or dormitories or cooperatives ($169.67).

On average, male students spent $7 more per month than did female students. The mean monthly living expenses rose with class standing, yet the mean for sophomores ($192.16) was only approximately $5 lower than the mean for seniors ($197.01). The mean living expenditures of professional, education, and home economics majors were also within $5 of one another. Again the highest mean ($201.39) was reported by the professional majors, and the lowest by the general majors ($182.26).

Personal Expenses

Personal budget components were defined as personal care, cleaning, clothes, gifts, contributions, dues, recreation, and charge accounts. The monthly group mean for personal expenditures was $85.65 per month, or 23 percent of the mean total budget. Mean monthly personal expenditures reported by students ranged from $3 to $609.

The ANOVA indicated significant differences in the mean monthly personal expenses of the various types of academic majors

($F(3,345)=3.380$, $p \leq .05$). However, the Scheffe method did not detect differences among the student major groups. Professional majors reported the highest monthly personal expenditures ($108.35), followed by home economics, education, and general majors, whose means were within a $3 range.

Males spent a mean of $91.70 per month on personal expenses, while females spent $83.94 per month. By academic standing, the highest monthly personal expenditures were reported by senior students ($92.06), followed by sophomore ($81.35) and junior students ($78.08). Comparing residence groups, sorority residents ($101.24) and fraternity students ($97.54) spent the most on personal expenses, with students living alone in an apartment or house reporting the lowest mean ($68.60).

Automobile Expense

The automobile expense budget category was composed of car payments, gasoline and car maintenance. More than three-fourths (275 or 78.8%) of the students reported monthly expenditures related to an automobile. Within a range from $1 to $926, the mean for the sample was $32.67, which represented 9 percent of the mean total monthly budget.

Significant differences between students' mean monthly automobile expenses were revealed when data were analyzed by college residence ($F(4,274)=5.673$, $p \leq .001$), sex ($F(1,274)=21.355$, $p \leq .001$) and academic major ($F(3,271)=2.928$, $p \leq .05$). The post hoc testing revealed that mean automobile expenses reported by sorority residents were significantly lower than expenditures reported by students living alone in an apartment or house, and fraternities. Fraternity students incurred the highest monthly automobile expenses ($72.80), followed by students living alone in an apartment or house ($58.12), apartment and house mates ($35.91), and dormitory or cooperative residents ($25.29). The sorority residents' mean monthly auto expenditure was $13.51. On average, males students spent significantly more than females on auto expenses. The mean for males ($56.25) was two times that for females ($25.08)

The Scheffe test detected no significant difference in mean auto expenses among academic majors. Professional majors reported the highest mean ($46.81), while education students reported $36.79 and future home economists reported $26.23 per month. General majors reported the lowest mean monthly automobile expenses ($21.76). Senior students spent an average of $38.55 for automobile expenses, compared to sophomore students $30.53 and juniors at $23.97.

Miscellaneous Expenses

Insurance, medical and dental expenses, furniture, subscriptions, pet care, and fees were included in the miscellaneous budget category. The monthly mean for the sample was $32.13, or 8% of the mean total monthly budget. The range of miscellaneous expenditures reported by the students was from $1 to $925. The ANOVA testing indicated no significant differences in the mean monthly miscellaneous expenses and demographic variables.

For male students, mean monthly miscellaneous expenditures were $37.06, while females reported a mean of $30.76. Seniors ($34.38) outspent juniors ($31.47) and sophomores ($26.11). Professional majors spent a monthly average of $43.47 for miscellaneous expenditures, while general majors reported lowest expenditures ($28.28). By residence, students sharing an apartment or house ($35.55) reported the highest mean miscellaneous expense, with fraternity residents reporting the lowest expenditures ($13.95). Students living in dormitories or cooperatives, alone in an apartment or house, or in a sorority all reported mean monthly miscellaneous expenditures of approximately $30.

Educational Expenses

At $25.58, the mean for monthly educational expenses accounted for 7 percent of the mean total monthly budget for the sample. As defined, this budget category included textbooks, laboratory fees, and supplies. The range of educational expenditures reported was $1 to $397. Not surprisingly, the sample mean educational expenses for the first month, which was the beginning of the term, were higher ($41.41) than the second month ($14.95).

The ANOVA test indicated the only significant difference in mean monthly educational expenditures among subgroups was by place of residence ($F(4,325)=2.908$, $p \leq .05$). The Scheffe process, however, detected no differences among the means of the various residence groups. Fraternity members reported the highest mean monthly educational expenses ($34.17), followed by dormitory or cooperative ($29.67) and sorority residents ($28.79). The lowest means were for alone or those sharing apartments or houses (approximately $22 each).

With a mean of $29.68 per month, males spent $5.19 more than did females for educational expenses. Junior students reported the highest monthly educational expenses ($28.18), but all three class levels were within a $6.00 range. Education majors had the highest mean monthly educational expenses ($27.98) outspending other academic majors by approximately $4.00 per month.

Discussion and Conclusions

Because the sample was localized and non random, the reader is cautioned against generalizing from these data. (Alternatively, an important use of this type of data requires it to be location-specific.) The results of this study, however, suggest that costs can vary to a great degree dependent on place of residence, sex, or academic major. Expenses can be heavily influenced by where a student chooses to live. In this sample, automobile expenses represented significant expenditures in the majority of the students. For schools with greater percentages of undergraduates living on campus, the automobile budget item may not be as important a

planning concern. Alternatively, living off-campus may be a natural progression related to class standing (85% of this sample was upper-class persons).

In this sample, students living alone in off-campus housing reported the highest living, educational, automobile, and total expenditures per month. However, those living in university-sponsored housing (specifically dormitories or cooperative housing) had the lowest living and total expenditures. These results agree with those found in studies by Hills and Van Dusen (1982) in California, Bhella (1979) in Iowa Barks (1979) in Pennsylvania and Moore (1982) in Missouri. However, they contradict the finding of Maxey et al. (1979) in Illinois, who found that students living on campus incurred higher room and board expenses than those living off campus.

These results do not clearly indicate whether the cost factor is related more to the off-campus location, to the size of household, or a combination of both. Other important factors to consider in analyzing student housing costs are the housing market supply and demand balance and the competitiveness of university housing rates in the specific community.

The results of this study show that males spent more per month than females, not only in total expenditures but also in automobile-related expenses. Jackson and Pogue's 1983 study also found male students outspending female students in automobile costs. Barks' (1979) study indicated that male undergraduates outspent female undergraduates in the areas of transportation, food, recreation, and club expenses, while females reported higher educational, clothing, and personal expenses. Contrary to the results of this study, Hendricks and Gersmehl (1981) found no real differences in reported expenses by sex.

The student's academic major also appears to influence their costs--in this study significant differences were noted in mean monthly total expenses, automobile costs, and personal expenditures. Only for total expenses, however, did the mean separation procedure identify the (high cost) majors: professional.

The costs revealed by these data would include the following proportionate expense components: living (53%), personal (23%), automobile (9%), miscellaneous (8%) and educational (7%). At nearly one-fourth of the total, the personal expense category may tend to be underestimated in college planning. As noted earlier, auto expense may also be an important item for a large group of students. Future studies may also need to make the distinction between car expenses for those who merely pay to operate the vehicle (as a gift from parents) vs those who make the loan and insurance payments. The miscellaneous budget category may also need further clarification to determine whether these are planned expenses or whether the miscellaneous component is really a "contingency fund". Finally, the educational expense item may lower if measured over an entire term or academic year.

These data are for 1980-81 and, therefore, the proportions may be more important than the dollar figures, the latter could be updated via the use of the CPI or other regional or local cost-of-living index system. Since 1980, total expenditures have increased by 32 percent, according to the CPI. Aligning future data collection devices (expense diaries) with CPI market basket categories will improve the ability to, for example, compare whether the living and personal expense items (the bulk of the total supportive cost budget) have risen faster or slower than the total.

In light of current economic and political efforts to decrease the federal deficit, financial aid programs (at federal and state levels) are being severely reduced. With concurrent increases in college costs, families and students face serious problems as they attempt to pay for college educations. It becomes critical for students and families to neither under nor overestimate college expenditures. Further research is needed to determine and constantly update the actual costs of attending a university, and to identify the factors that affect those costs. University administrators can use these data in the development of institution-specific student expense budget guidelines.

We need to bridge the existing information gap felt by families, students, and professionals as they face access, choice, and retention decisions associated with attending a post-secondary institution. Families are finding it increasingly difficult if not impossible to pay students educational costs from savings and current income while simultaneously providing for regular family financial needs and wants. Financial planning can be the crucial tool used to meet educational expenses and insure the economic integrity of the family. Findings collegiate spending patterns can be incorporated into family, high school, community, and post-secondary financial planning programs. Clearly, family economics and home management educators are in an excellent position to both teach financial management principles and utilize data provided (relatively cost-free) by those students in research efforts that will benefit the university administration as well as future students.

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Appendix A

EXPENDITURE COMPONENTS COMPRISING BUDGET CATEGORIES

Living Expenses	Educational Expenses
Rent	Textbooks
Room and Board	Laboratory and Supplies
Food Prepared at Home	
Food Eaten Away	
Telephone	Automobile Expenses
Electricity	
Other Utilities	Car Payments
	Gasoline
Water	Car Maintenance
Garbage	
Natural Gas	Miscellaneous Expenses
Cable TV	
Personal Expenses	Insurance
	Medical/Dental
Personal Care	Furniture
Gifts/Contributions	Subscriptions
Cleaning/Clothes	Pet Care
Dues	Fees
Recreations	
Charge Accounts	

Appendix B

Table 1. Budget Categories Expenditure Data

Expense Category	N	Minimum	Maximum	Mean	Median	% Budget
Living	348	1	629	195.75	186.75	53
Personal	349	3	609	85.65	68.00	23
Automobile	275	1	925	32.67	16.06	9
Miscellaneous	333	1	925	32.13	13.20	8
Educational	326	1	397	25.58	21.75	7
Mean Total	349	29	1561	361.13	337.13	100

Table 2. Mean Total Expenditures by Sex and ANOVA Table.

Sex	N	Mean
Male	77	402.60
Female	272	349.39

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	1	169913.98	169913.98	6.634	.0104
Within Groups	347	8887996.08	25613.82		
Total	348	9057910.05			

Table 3. Mean Total Expenditures by Academic Major and ANOVA Table

Academic Major	N	Mean
Professional	65	413.55
Home Economics	109	355.71
Education	117	355.47
General	55	329.30

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	3	240799.11	80266.37	3.135	.0257
Within Groups	342	8756924.87	25605.04		
Total	345	8997723.98			

Table 4. Mean Total Expenditures by College Residence and ANOVA Table

College Residence	N	Mean
Apartment or House Alone	25	420.86
Fraternity	13	409.08
Apartment or House Shared	160	369.11
Sorority	70	357.14
Dorm & Co-op	81	322.70

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	4	250031.10	62507.77	2.441	.0466
Within Groups	344	8807878.96	25604.30		
Total	348	9057910.05			

Table 5. Mean Living Expenditures by College Residence and ANOVA Table

College Residence	N	Mean
Apartment or House Alone	25	257.68
Fraternity	13	213.17
Apartment or House Shared	160	198.05
Sorority	69	195.31
Dorm & Co-op	81	169.67

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	4	155814.26	38953.57	6.046	.0001
Within Groups	343	2209963.98	6443.04		
Total	347	2365778.24			

Table 6. Mean Personal Expenditures by Academic Major and ANOVA Table.

Academic Major	N	Mean
Professional	65	108.35
Home Economics	109	82.00
Education	117	80.28
General	55	79.46

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	3	40383.01	13461.00	3.380	.0185
Within Groups	342	1361927.29	3982.24		
Total	345	1402310.30			

Table 7. Mean Automobile Expenditures by College Residence and ANOVA Table.

College Residence	N	Mean
Fraternity	10	72.80
Apartment or House Alone	21	58.12
Apartment or House Shared	137	35.91
Dorm & Co-op	57	25.29
Sorority	50	13.51

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	4	52602.16	13150.54	5.673	.0002
Within Groups	270	625926.38	2318.25		
Total	274	678528.55			

Table 8. Mean Automobile Expenditures by Sex and ANOVA Table

Sex	N	Mean
Male	67	56.25
Female	208	25.08

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	1	49225.92	49225.92	21.355	.0000
Within Groups	273	629302.63	2305.14		
Total	274	678528.55			

Table 9. Mean Automobile Expenditures by Academic Major and ANOVA Table.

Academic Major	N	Mean
Professional	54	46.81
Education	87	36.79
Home Economics	82	26.23
General	49	21.56

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	3	21488.78	7162.93	2.928	.0342
Within Groups	268	655676.68	2446.55		
Total	271	677165.47			

Table 10. Mean Educational Expenditures by College Residence and ANOVA Table.

College Residence	N	Mean
Fraternity	12	34.17
Dorm & Co-op	79	29.66
Sorority	65	28.78
Apartment or House Alone	21	21.98
Apartment or House Shared	149	21.83

Source	DF	SS	MS	F Ratio	Signif. of F
Between Groups	4	5240.16	1310.04	2.908	.0219
Within Groups	321	144632.74	450.57		
Total	325	149872.91			

EFFECTIVE FINANCIAL MANAGEMENT: A DEFINITION AND A MEASURE

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To understand the financial behavior of families, it is necessary to determine what influences an individual or family's ability to have effective financial management practices. For this study, it is hypothesized that effective financial management will be influenced by certain demographic as well as behavioral characteristics. In addition, it is believed that effective financial management as well as the determinants of this behavior will vary for White, Black, and Mexican-American families.

Early assumptions about effective financial management indicate that it is good to save, too much debt is bad, and written plans are better than mental plans. It is further assumed that if good practices are followed, the household will not have financial problems. Are these assumptions correct? If so, then what are the determinants that influence effective financial management? At this point, no measure exists that can be used to determine the variables that have an impact on effective financial management. Nor does a tested definition of effective financial management exist. Therefore, to test the hypothesis of this study and identify the variables that have an impact on effective financial management, it was necessary to develop a definition and a measure of effective financial management. A review of research literature did not yield a pre-tested theoretical model. However, information was found regarding the elements of financial management. In this study, we defined financial management elements as budgeting behavior, saving behavior, insurance usage, credit usage, decision-making processes, and frequency of financial problems.

One way to determine whether or not a family has effective financial management practices is to look at whether or not they manage to stay solvent (Richards, 1965, p. 8). In a New York study, low-income families who were relatively insolvent were much more likely to mention financial worries than solvent families, and more likely to mention financial worries than other worries (Caplowitz, 1963). Williams, et al. (1976, p. 195) also found that the lower a family's economic position, the more likely the family was to have a greater number of financial problems and to experience them with greater frequency.

Little attention has been given to identifying variables that have an influence on financial practices, especially differences that may o ur in minority families. Differences may exist among ethnic groups in their control of family finances since all cultures do not feel the same about solvency. Education has been found to influence the expenditures of white families (Hafstrom and Dunsing, 1972). Duesenberry, in 1952, stated that people learn new ways to spend money by observing those slightly richer or better off than they are. As a result, he hypothesized that differences exist in black-white saving behavior.

The Model

For this study, effective financial management became defined as the type of budget used by the family, the frequency of saving and the frequency of financial problems in the family. Each of these items is generally considered to be a positive feature of any good financial management plan. Combining the three allowed a more comprehensive look at the financial management of a family rather than selecting an individual item such as whether or not a family had a budget. By contrast, it is hard to determine whether credit usage, amount of insurance coverage, or who makes financial decisions are positive or negative elements of a family's financial management plan. For this reason, these variables were entered as independent variables in the regression model.

The dependent variable, effective financial management was created by combining three financial variables that had a positive correlation when tested. These variables were budgeting behavior, saving behavior, and frequency of financial problems (see figure 1). The budgeting variable was created by combining whether or not the family had a budget and the type of budget. This variable was scaled with families having a written budget receiving the highest score and families with no budget receiving the lowest score. The saving variable was created by scaling the frequency of saving with families saving the most frequently receiving the highest score and those who never saved receiving the lowest score. In this instance, families who saved once a week or bi-weekly received the highest score. The variable, frequency of financial problems, was created in a comparable manner. In this instance, families who never had financial problems were given the highest score and families who had the highest frequency of financial problems received the lowest score. For use in regression analysis, these three variables were standardized so they could be aggregated to create the dependent variable. The z-transformation was first performed for each of the three variables and then they were added together. It was necessary to create this dependent variable so that we would have a workable measure to use in assessing the process of effective financial management for Black, White, and Mexican-American families.

Procedures

An area probability sample was selected from blocks of census tracts of a low-income, high

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minority, and high unemployment section of the city of Phoenix, Arizona, in 1980. An interview designed to obtain information on family financial practices was administered to an adult member of selected households. Usable data were collected from 199 respondents, who represented 69 White, 70 Black, and 60 Mexican-American families. Coded data were computer analyzed using appropriate frequency and multiple regression statistical techniques from the SPSS package.

The household heads in the sample averaged 39.9 years of age and 10.8 years of education. There was an average of 4.1 members, including 2.6 children, in the families. Seven percent of the households were classified as in the beginning family life cycle stage (married, no children); 29 percent were in the establishment stage (child-bearing to kindergarten), 49 percent were in the development stage (children in school), and 15 percent in the contracting stage (no children in school or at home). Males headed the families in 72.6 percent of the cases, and 72.4 percent of all heads were employed. In terms of occupation, 76.5 percent of the heads were blue-collar workers, 19.7 percent were white-collar workers, and only 3.8 percent claimed "housewife" as principal occupation. Family income levels for 1980 averaged $10,631. (For a more detailed account of procedures and sample characteristics, see Schnittgrund and Baker, 1983.)

Regression Analysis

Multiple regression analysis was used to determine which factors contributed most toward explaining successful financial management practices in the sample. Based on previous research (Davis and Helmick, 1980; and Duncan, 1984), it was hypothesized that economic variables would contribute the most explanatory power, followed by demographic variables, and lastly by satisfaction and attitude variables. Accordingly, regression with hierarchical inclusion was used in which the solutions were performed in steps with the variables entered in predetermined order of sets (economic, demographic, satisfaction and attitudinal variables).

A regression was initially run using twenty-six independent variables. The coefficient of multiple determination, R^2, measured the extent of association between the dependent variable and the independent variables; it was adjusted for sample size and the number of variables in each regression (Ferber, 1949). The F-ratio was used to test the significance level of each coefficient of multiple determination. Based on the results, the final regressions were run using those nine variables with a t-static of 1.0 or greater: perception of income adequacy; keep track of expenditures; credit use; spouse's employment status; number of children; life cycle stage; occupation; housing tenure; and satisfaction with things, success, and job. Separate regressions were completed to analyze the data for the total sample and each ethnic subgroup. The F-level in each regression was set at 3.9 so variables that did not have an F-score of 3.9 or better were not included in later steps in the regression. (See Table 1 for the coding of the variables included in the final regressions.)

Results of the regression for the total sample indicate that the variables contributing the most explanatory value were satisfaction with things, success, and job ($P<.05$) and number of children ($P<.05$). Families that were not satisfied with what they had and had less children were more likely to have effective financial management practices than families that were satisfied or had more children. Housing tenure and perception of income adequacy remained in the regression but were not significant in the final stage of the regression. The overall explanatory power of the model while significant ($P<.001$) was low, represented by the .07 adjusted regression coefficient.

Since the special focus of this study was on low-income, ethnically different families, the same regression model was used to analyze the White, Black, and Mexican-American subsamples. For each subsample, the adjusted regression coefficients were also significant, but low at .15 ($P<.01$) for the White families, .14 ($P<.01$) for the Mexican-American families, and .04 ($P<.05$) for the Black families.

Two of the variables for the White families were statistically significant. In terms of beta coefficients, the most important variable was the dummy variable for occupation. Families where the household head was employed as a blue-collar worker were more likely to have effective financial management practices than families where the household head was an unemployed white-collar worker ($P<.001$). The respondent's perception of adequacy of income also influenced financial management practices. If the respondent perceived the family did not have enough income, they were more likely to have effective financial management practices ($P<.05$).

For both the Mexican-American families and the Black families, only one variable in the final model was statistically significant. In terms of beta coefficients, the most important variable for Mexican-American families was satisfaction with things, success and job ($P<.01$). Mexican-American families that were not satisfied with what they had were more likely to have effective financial management practices than Mexican-American families who were satisfied with what they had. For Black families, keeping track of expenditures was an important determinant. In terms of beta coefficients, Black families who kept track of their expenditures were more likely to have effective financial practices than Black families who did not keep track of their expenditures ($P<.05$).

Discussion

The major focus of this study was to develop a measure of effective financial management and to use that measure to determine whether or not there are differences in what influences the financial management practices of Black, White, and Mexican-American families. The models that were developed by this analysis had low explanatory value; however, they are an important first step in defining effective financial management. It is interesting to look at the significant variables for the total samples vs. the sub-

samples. For the Mexican-American families, as well as the total sample, the most important determinant was satisfaction with things, success, and job. Beyond that, no similarities occurred among the subsamples or between the subsamples and the total sample.

Many of the findings seem fairly logical. For example, Black families who keep track of their expenditures are likely to have effective financial management practices. Since we would expect this relationship to exist for all families, it is interesting that it is only significant for Black families. Perhaps for the Mexican-American or White families, it is important, but not as influential as other variables.

Based on past research (Davis and Helmick, 1985; Mammen and Helmick, 1980) it was expected that perception of income adequacy would be a significant determinant of effective financial management practices. This was the case only for White families; and while it was included in the regression for all families, it was not statistically significant in the final regression. In addition, the relationship that existed was negative. That is, if the respondents perceived their families' income was not adequate, they were likely to have effective financial management practices.

A negative relationship also existed for the variable satisfaction with things, success, and job. This variable was statistically significant for the total sample and the Mexican-American families. That is, if the respondents were not satisfied with what they had, they were more likely to have effective financial management practices than if they were satisfied with what they had. It is interesting to note that, for this sample, dissatisfaction with things, success and job was more influential than perception of income inadequacy. This may indicate that if you are dissatisfied with your success and job, income inadequacy becomes less important.

At this point there are many questions remaining. The model tested in this study provides a possible definition for effective financial management and a partial understanding of what influences effective financial management. It appears that cultural differences do exist that determine whether or not a family will have effective financial management practices. However, the model is not complete enough to develop the understanding that is needed to adequately develop programs that will help various cultural groups improve their financial management practices. Futher testing and research of these concepts needs to be done to develop a more complete model of what determines effective financial management. In addition, a universal definition of effective financial management needs to be developed and tested.

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Figure 1. The Dependent Variable.

Dependent Variable (Effective Financial Management)

1. Type of Budget
   - Written = 4
   - Envelopes = 3
   - General idea = 2
   - None = 1

2. Frequency of Saving
   - Weekly or bi-weekly = 4
   - Monthly = 4
   - 4 - 6 times a year = 3
   - Once a year or less = 2
   - Never = 1

3. Frequency of Financial Problems
   - Every day = 1
   - Weekly = 1
   - Monthly = 2
   - Bi-monthly = 2
   - Once a year = 3
   - Every 2 years = 4
   - Never = 4

Table 1. Coding of Explanatary Variables Entered Into Final Regressions on Effective Financial Management Practices Variable.

Variable Name	Coding	
Perception of income adequacy	Everything your family wants	= 5
	Most of the things your family wants	= 4
	Some of the things your family wants	= 3
	Only basic necessities	= 2
	Not enough for basic necessities	= 1
Credit use: Has your family ever used credit?	Yes	= 2
	No	= 1
Keep track of expenditures	Yes	= 2
	No	= 1
Employment status of spouse	Employed	= 2
	Unemployed	= 1
Number of children	Actual number	
Stage in Life Cycle (dummy variable)	Beginning (married, no children)	= 1
	Expanding (child-bearing to kindergarten)	= 2
	Development (youngest (in grade school)	= 3
	Development (youngest in high school)	= 4
	Contracting (recovery)	= 5
Occupation and Employment (Dummy variable)	White-collar, employed	= 1
	White-collar, unemployed	= 2
	Blue-collar, employed	= 3
	Blue-collar, unemployed	= 4
	Housewife	= 5
Housing Tenure: do you own/ rent your home?	Own	= 2
	Rent	= 1
Satisfaction with things, success, job	Very satisfied	= 5
	Satisfied	= 4
	Uncertain	= 3
	Dissatisfied	= 2
	Very dissatisfied	= 1

HOME MANAGEMENT-FAMILY ECONOMICS EDUCATORS: SERVING THE NEEDS OF REMARRIED FAMILIES

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Abstract

A survey of Cooperative Extension Specialists indicated a recognition of the unique concerns of remarried couples. Two-thirds of the Specialists plan to address the needs of remarried couples in the near future. Yet, few educational materials are available on one of the most troublesome concerns: financial management. Interdisciplinary research is needed to provide data for the development of educational materials.

Introduction

The rapid increase in the divorce rate over the past quarter century focused extensive media and research attention on divorce and its consequences for families as well as society. With this attention came a proliferation of literature, self help books, professional counseling services and a variety of formal and informal support groups. Divorce is now an institutionalized part of American family life.

While Home Management-Family Economics (HM-FE) professionals are well informed about the consequences of divorce, they may be less aware of the resulting growth in remarriage after divorce. Since three quarters of young divorced persons remarry within three to five years of divorce (Glick 1980), remarried families constitute an increasing segment of our population. Currently, 45% of marriages performed each year involve at least one previously married partner (NCHS 1983).

Although the divorce rate has leveled off, the number of divorces in America each year is unlikely to decline significantly. Glick (1984) projects that half of the first marriages among young adults will terminate in divorce while 60% of second marriages will end that way.

Although the Census Bureau does not gather data on the number of remarried couples, Cherlin and McCarthy (1985) used the June 1980 Current Population Survey to estimate that 20% of married couple households (9.2 million) include one or both spouses who were divorced. About 2.3 million of these family units include stepparents and stepchildren. Because Cherlin and McCarthy limited their definition of remarried couples to exclude widowed persons, the number of stepfamilies is estimated conservatively. While there are different terms used to refer to a marriage where one or both spouses was previously married, including blended and reconstituted, the term remarriage is the predominant label used by researchers. When children from a previous marriage are included, the family is commonly referred to as a stepfamily by researchers although many of these couples prefer the term "blended" family.

Many remarried couples experience the bewilderment common to divorced persons of 25 years ago who felt alone and adrift while trying to rebuild their lives in a society that offered no place for the divorced. Because remarried families outwardly resemble the nuclear family of first marriage, they are often treated that way by society. Attempts to shape the new household into the traditional nuclear family mold frequently cause considerable stress (Messinger 1976). Cherlin (1978) postulated that a lack of institutionalized guidelines for dealing with complex relationships hampers family integration in remarriages. Uncertainty over such basics as what to call my mother's new husband, the role of the stepparent in disciplining children, and where children should spend holidays are problems with few societal guidelines.

Just as there are few societal guidelines regarding stepfamily relationships, there is little information to assist remarried couples in determining how to manage their financial affairs. Whether and to what extent to merge financial resources and debts acquired prior to remarriage, the legal and financial aspects of step relationships and how to distribute limited resources within a complex family are among the challenges facing couples who remarry after divorce. Dolan and Lown (1985) describe some of these challenges and avenues for meeting these needs.

Review of Literature

Research indicates that children (step relationships) and finances are among the primary sources of stress in remarried families (Messinger 1976). According to at least one national poll (Goodman, 1986) these issues are the main source of disagreement in American families, with 37% of family financial decision makers listing money as the most common irritant with children (29%) in second place. Financial complications in remarriages are frequently related to child support payments both paid and received, ownership of assets obtained prior to marriage, and decisions regarding merging of financial resources (Fishman 1983, Lown 1984).

Based on telephone interviews with 23 remarried couples living in northern Utah, Lown (1984) found that difficulties in enforcing child support obligations, debts from the previous marriage and subsequent divorce, large family size in relation to income, and lack of sufficient savings were typical problems. Even those couples who experienced financial disagreements or difficulties which contributed to their divorce

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rarely discussed finances in any depth prior to remarriage. Respondents stressed the importance of common values and goals, open communication and joint decision making as crucial elements in a successful remarriage.

These subjects differed substantially from the Fishman (1983) sample of 16 urban remarried couples since none of the Utah couples maintained separate finances other than a few with separate checking accounts. Half of the couples in the Fishman sample maintained distinctly separate finances. These "two pot" families tended to be affluent and intent on maintaining personal autonomy while the remaining "common pot" couples who merged their finances placed a higher priority on family integration (Fishman 1983).

Need for Financial Education Programs for Remarrieds

While there may be little overt demand for presentations specifically designed for remarried couples, educators should consider the unique needs of remarried couples when developing their programs. Just as references to the special needs of divorced parents are often included in textbooks, social programs and public policies, the 20% of American families formed from a remarriage deserve our concern and attention.

Home Management-Family Economics educators and Cooperative Extension Family Resource Management Specialists, in particular, should consider the needs of this growing family type when developing programs. By becoming aware of the special needs of these families and integrating these concerns into our programs, we can increase our appeal to a broader spectrum of family types. HM-FE educators face a challenge in assisting these couples in developing financial management strategies that will reduce the stress that may contribute to the higher divorce rate for remarriages.

Purpose

The purposes of this study were to:

1. determine the extent to which Cooperative Extension Specialists in Family Resource Management (FRM) and Family Relations and Child Development (FRCD) are addressing the needs of remarried families,

2. identify resource materials on remarriage available from Cooperative Extension, and

3. identify the information and resource needs of FRM Specialists specific to financial management in remarriage.

Although this survey was limited to Cooperative Extension Specialists, the information is equally useful to HM-FE educators and researchers.

Procedures

A 10 question survey was mailed in March 1985 to 173 Family Resource Management (FRM) and Family Relations and Child Development (FRCD) Cooperative Extension Specialists in each state, the District of Columbia, Guam and the Virgin Islands. USDA Directories served as the sampling frame. Some states have more than one specialist in each area, thus the total of 173 subjects.

FRCD Specialists were included in this study because a review of the literature on remarriage and stepfamilies indicated that the majority of research has been conducted by family studies professionals. Although finances were often identified as a primary problem, few studies examined this subject further. Thus, it was expected that most existing educational materials would be available from FRCD Specialists. Because the dynamics of financial problems are frequently intertwined with interpersonal relationships, and financial disagreements often reflect interpersonal power struggles, FRM Specialists may benefit from an understanding of remarried family dynamics. In addition, the materials developed by FRCD Specialists can provide valuable background for programs on financial management.

Three of the ten questions dealt with whether the Specialist or a colleague addresses the needs of remarried families in current programs. Other questions inquired about needs assessments and requests for information from county agents or the general public. Three questions related to availability of educational resources and one inquired about future program development plans. Finally, respondents were asked to list specific topics about which they wanted more information.

Findings

Responses were received from 93 Specialists (54.3%), about evenly divided between FRM (N=44) and FRCD (N=49). Since the primary objective of the study was to identify existing educational resources, a follow-up was not conducted because we felt those Specialists who are addressing the needs of remarried families would be highly likely to reply while most non-respondents would be persons who were not yet offering programs relating to remarriage.

As anticipated, the FRCD Specialists are more involved than FRM Specialists in addressing the concerns of remarried families in their programming. While only five FRCD and three FRM respondents have conducted needs assessments to identify concerns of remarrieds, 33 FRCD and 11 FRM Specialists had received requests from county agents or the public for information or programs. Although 20 FRCD and 13 FRM respondents developed resource materials that include some references to the needs of remarrieds, 12 FRCD and 2 FRM Specialists have developed materials specifically for remarried families.

A total of 59 of the 93 respondents (63.4%) plan to address the needs of remarried families within the next two years. Eighty-five respondents requested more information on resources and a copy of the survey results.

Remarriage Educational Resources

The types of materials available from the

respondents include news releases, public service announcements, newsletters, research articles and complete programs with print and visual materials. Information on ordering these resources was provided by 10 FRCD Specialists.

In response to one of the questions in the survey, respondents provided information on other materials available about remarriage and stepfamilies. While most of the information is designed for FRCD program topics, specific needs of remarried couples are addressed in one estate planning workshop; financial planning prior to remarriage is included in another program.

As a result of this project and additional research, a resource list on remarriage is available which includes articles, pamphlets, organizations, newsletters and audio visual materials from a variety of sources which are suitable for use in educational programs for remarried families.[3]

Information Needs of FRM Specialists

Responses to the question on what information and materials specific to remarried couples are needed by FRM Specialists included:

- Any information regarding financial concerns for the remarried family
- Financial management and estate planning
- Money: yours and mine or ours?
- Conflict resolution for stepfamilies
- Summaries of research
- Child support and visitation issues
- Testifying as an expert witness on child support
- Relationships: stepfamily, ex-spouse, extended family
- Helping children adjust

Implications for Program Development and Research

Although FRM Specialists focus on the economic well being of families, the results of this survey indicate they recognize the need for better understanding of the family relationships involved in this economic dynamic. Since money is a symbol of power and commitment and cannot be studied and analyzed in isolation from other issues, inter-disciplinary research efforts are needed to provide educators and counselors with guidance. The best resources may be colleagues in related areas of home economics who are doing research or developing educational materials on divorce and remarriage. Educators and researchers who have materials available on these topics could share their resources through professional publications and meetings.

Additional community resources include lawyers who deal with domestic relations cases including divorce, child support and alimony, particularly those who work with post custody and remarriage cases. Each state has an Office of Child Support Enforcement which can provide information on recent federal legislation designed to enforce child support decrees and enforcement procedures in addition to providing speakers to discuss

[illegible]

issues with concerned groups.

Because the research on financial management in remarriage is so limited, there is a need for further work in this area. While many financial management researchers may be testing hypotheses applicable to all family types, researchers should include a category for remarriage in the demographic questions. Traditionally all married couples have been lumped into the same category, setting them apart from singles and divorced, separated or widowed persons. Since recent research indicates that financial management practices and problems differ in remarriage, researchers should consider comparing the responses of first marriages and remarriages in their research.

Previous research on finances in remarriage has been limited to cross sectional data collection with most of the subjects self selected by virtue of having sought professional counseling. Since we know little about developmental changes in financial management practices over time, there is a need for research with a non-clinical population. Do couples that begin a remarriage by keeping their finances separate change from a "two pot" (or three pot) to a "common pot" system over time? Do "two pot" couples differ from "common pot" couples in terms of marital satisfaction and the durability of their marriage?

In cross sectional studies, particularly with recently remarried couples, we can measure satisfaction with their current money management practices but lack information on success rates as measured over a period of years. The major problem with comparing financial management practices in a cross sectional sample based on length of marriage is difficulties in recalling changes in practices which have evolved over time. Ideally, a random sample of newly remarried couples could be studied over regular intervals to identify successful patterns of financial management so that counselors and educators would have a base of knowledge to guide them in their work.

Summary and Conclusions

Cooperative Extension FRM and FRCD Specialists expressed a need for information and resource materials for use with remarried families. Although most of the existing resources were developed by FRCD Specialists, many of these materials are suitable for use by Home Management-Family Economics professionals in a variety of educational situations due to the close link between family interactions and financial matters. Since developing quality educational materials is costly and time consuming, we should encourage sharing of information and resources.

At the beginning of this decade there was little knowledge of remarriage, research activity on family relationships in remarriage has flourished in the intervening years. We [illegible]

money management and remarriage and the expressed need for information suggest research and program development possibilities.

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A COMPARATIVE EVALUATION OF THE CONSUMER INFORMATION CATALOG IN FOUR PRESIDENTIAL ADMINISTRATIONS

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Abstract

The consumer Information catalog is the major vehicle used by the Consumer Information Center to promote and distribute information from the federal government to consumers. This study compared and evaluated titles offered in the Consumer Information Catalog over a decade which spans four presidential administrations. Criteria used to evaluate catalog offerings were responsiveness to national needs, timeliness, and accessibility of the consumer information.

The Consumer Information Center (CIC) was created by Executive Order 11566 on October 26, 1970. Upon issuing the order, President Nixon said:

> "Numerous agencies...purchase from private industry a wide variety of consumer products... The making of such purchases requires the development of extensive documents, reports, and information for evaluating the products purchased. The Federal government has an opportunity to help the consuming public by sharing the knowledge which the government has accumulated...with tax dollars. ...Such product information...should be made available to the public...in a manner that is useful to consumers..." (Nixon, 1970, p. 1).

The above quotation echoed and reaffirmed the rationale which had developed over a number of years as policy makers and consumers considered the concept of consumer access to information stored in federal government files. Among those who had expressed support for making such information available were Senators Philip Hart and Frank Church, President Kennedy, and Consumers Union President Colston Warne.

In the first consumer message to Congress, President Kennedy not only declared the consumer's right to be informed, he also noted that:

> "...many departments and agencies are engaged...in testing the performance of certain products, developing standards and specifications, and assembling a wide range of related information that could be of immense use to consumers and consumer organizations" (Kennedy, 1962).

The late president also made clear that he wanted the information released as part of the government's responsibility to consumers (Staff, 1968).

In 1967, Consumers Union (CU) contacted the National Bureau of Standards (NBS) to request test methods and results of hearing aid tests the NBS had conducted for the Veterans Administration (VA). CU received the test method information from the NBS but the VA refused to supply the test results (Staff, 1968). At the time, CU queried in its magazine, Consumer Reports: "By...what authority could the Government employ its scientific resources to aid one group of consumers--veterans--while denying those resources to all others..?" (Staff, 1968, p. 552). CU waited until the Freedom of Information Act became effective in the summer of 1968, then repeated its request to the VA for hearing aid test data. After what CU termed "a variety of bureaucratic evasions", CU filed suit to obtain the data on the basis of the Freedom of Information Act. That suit resulted in a partial CU victory and a decision by CU to appeal. During legal arguments on that appeal, the VA conceded that its original refusal to divulge all information on the hearing aid tests had been illegal (Staff, 1971). The case was a clear victory for consumers, but a narrow one. CU's attorney stated that the "Government lawyers finally caved in enough to avoid a broader decision" which might pave the way for release of other brand-name information in Government files (Staff, 1971).

The Consumer Information Center

With the issuance of the Executive Order in 1970, the President had used his limited legislative powers to establish a Consumer Information Center in the federal government. The purposes of the Center, as outlined in the Executive Order, were:

> -To promote the development, production and delivery of federal government documents containing information of use to consumers.
>
> -To make such information available and easily accessible to consumers.
>
> -To coordinate the federal efforts of more than thirty agencies to avoid the duplication of efforts (Nixon, 1970).

The Consumer Information Catalog, which the CIC publishes quarterly, is the main vehicle in the Consumer Information Center's promotion and distribution efforts (Stockton, 1979). The free Catalog is published quarterly, is 24 to 28 pages in length, and contains about 200 titles per issue. A catalog of publications printed in Spanish is also made available annually. Approximately twenty million copies of the Catalog are distributed per year through members of Congress, libraries, schools from the elementary to the graduate level, community groups, labor unions, etc. (Staff, 1982).

Titles listed in the Consumer Information Catalog must meet two criteria. First, they must be practical and useful. Staff members of the CIC have said listed publications shall be what

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consumers want; not what government personnel think they should have. The second criterion is that the publication should have an impact on the consumer's ability to obtain goods and services, deal effectively with questions of health and safety, or act knowledgeably about government programs and activities which affect their daily lives (Nasif, 1985).

Conceptual Framework

Information has been called "the most important element in a whole range of consumer issues" (Swagler 1979, pg. 87). Improved consumer information is a form of consumer power. Uhl has stated that, while a critical mass of consumer education and information is necessary, there are three mechanisms which interact and can be used as partial substitutes for each other. These mechanisms are consumer information/education, legislation and regulation, and voluntary actions in a competitive marketplace (Uhl, 1971).

Consumer information involves costs, in the forms of time, energy, and money. Consumers can be expected to weigh the costs of acquiring information against the anticipated benefits of the information (Maynes, 1976, Swagler, 1979). Government has recognized the importance of information to consumers and has developed public policies to reduce the cost of information flow to consumers. Examples of such policies are the creation of the Consumer Information Center, the publication of consumer information by many departments and agencies, and the creation and continued support of the Cooperative Extension Service.

A hierarchical model was developed by George Day to access the effects of information disclosure requirements. While Day dealt with point-of-purchase information, two criteria he suggested for the evaluation of information effectiveness can be adapted for application to pre-purchase consumer information such as that made available through the CIC catalog. These criteria are accessibility and relevancy (Day, 1984). In both the pre- and point-of-purchase situations, convenient and inexpensive access to information is important. In regard to information publicized through the CIC Catalog, convenient access to the catalog and to the publications it promotes are important. The cost of the consumer information in terms of money, time and energy could be used to measure accessibility of information.

Other suggested criteria for the evaluation of consumer information or education materials are relevancy of the information (Day, 1984) and the social significance and relevance today (AHEA, 1972). The relevancy of information to a current purchase decision or a socio-economic problem will influence the demand for the information and the use of the information. This paper combines the concepts of relevance and social significance to form the evaluation criterion, responsiveness to national needs.

An additional criterion for the evaluation of information offered by the CIC Catalog is timeliness or currentness of the information. Consumer information becomes outdated as new products and services are introduced and as old ones are changed or improved. Changes in public policies and in the social and economic environment also contribute to the deterioration of previously acquired consumer information. Therefore, publications which offer consumer information also become less relevant to current consumer needs over a period of time.

Purpose

The purpose of the study was to compare and evaluate the titles offered in the Consumer Information Catalog in the decade from 1973 to 1983, a time period which spanned four presidential administrations. The criteria used to evaluate the consumer information being made available by publication titles offered in the Catalogs were responsiveness to national needs, timeliness, and accessibility of the information.

Sample and Methods

The sample included one fall issue of the Catalog from each of four administrations. The Catalogs were the Fall 1973 issue, representing the Nixon administration and occurring two years after the first issue of the catalog; the Fall 1975 issue, representing the mid-point of the Ford administration; and the Fall 1979 and Fall 1983 catalogs, representing the third year of the Carter and Reagan administrations, respectively. The starting date of publication of the Catalog and the resignation of one president made it impossible to select catalogs from equally spaced time intervals in the four administrations.

All publication titles listed and described in the selected issues of the catalog were included in the sample. The total number of titles, including repeated and revised offerings, was 899. The dependent variable in the study was the Catalog year. Prices of publications for which a charge was made were adjusted to 1983 levels by the use of the annual average U.S. Consumer Price Index for urban wage earners and clerical workers. Data were analyzed by the use of tables and mean values. The chi-square statistic was used to test for significance and Cramer's V scores revealed the strength of relationship. All tables reported here have chi square probabilities of .01 or less and Cramer's V scores range from a modest .09 to a moderate .348.

TABLE 1. Subject Matter Comparison

Subject Matter	1973 N=213	1975 N=252	1979 N=222	1983 N=212
	%	%	%	%
Children	5.6	7.5	10.4	10.8
Employment & Education	0	0	6.8	13.2
Food, Diet & Nutrition	10.2	15.9	12.6	12.7
Gardening & Landscaping	9.9	6.0	5.4	3.3
Health	11.3	13.7	22.8	20.4
Housing	22.1	21.0	27.6	13.2
Money Management	3.8	4.4	6.3	6.7
Travel & Outdoors	3.8	6.3	5.9	7.1
Other	25.3	25.2	12.2	8.5
Total	100.0	100.0	100.0	100.0

Chi square probability = .001
Cramer's V = .202
Subject category was not in 1973 and 1975 catalogs

TABLE 2. Years Elapsed Since Publication Date: Comparison

Years Elapsed	1973 N=213	1975 N=252	1979 N=222	1983 N=210
	%	%	%	%
None; Current Year	33.3	20.2	23.4	15.2
1 year	29.1	42.1	46.4	27.1
2 years	23.5	18.3	18.0	27.7
3 years	7.5	8.3	7.7	15.2
4 or more years	6.6	11.1	4.5	14.8
Total	100.0	100.0	100.0	100.0
Mean years	1.32	1.52	1.27	1.99

Chi square portability = .000
Cramer's V = .153

TABLE 3. Repeated Offering of Previously Offered Publications

Similar (Same) as Previous Offering	1973, from 1971	1975, from 1973	1979, from 1975	1983, from 1979
	%	%	%	%
Not Previously Offered	62.4	63.8	67.1	56.7
Same as Previously Offered	22.1	22.6	3.2	4.7
Slightly Revised	13.6	12.3	27.0	32.5
Similar but Revised	1.9	1.3	2.7	6.1
Total	100.0	100.0	100.0	100.0

Chi square probability = .000
Cramer's V = .209

Findings

The evaluation of responsiveness to national needs was based on the percentage of publication titles offered under the several subject matter headings of the CIC Catalog (see Table 1). The results were then compared with major socio-economic issues and concerns of Americans in the time period studied. No education and employment heading existed in the 1973 and 1975 Catalogs. However, as the level of unemployment was climbing past the ten percent level for white males, the heading was added in 1979 and the number of titles offered more than doubled, to 13.2% of all titles in 1983.

Health titles provide another example of responsiveness to national needs. As the nation became more interested in physical fitness and preventative medicine or "wellness", the percentage of catalog offerings in the health category grew from 11 and 13 percent in 1973 and 1975 to levels of 23 and 26 percent in 1979 and 1983.

Even a reduction of publication titles can be interpreted as being responsive to national needs. In 1973 and 1975, when housing was a relatively affordable purchase for the majority of families, 21 to 22 percent of the CIC Catalog titles were housing publications. But when mortgage interest rates moved past the 10 percent rate in 1979, on their way toward peak levels around 14 percent, the quantity of housing titles dropped to 18 percent in 1979 and to 13 percent in 1983. With mortgage interest rates beyond the reach of many consumers during that time period, far less housing was being purchased and consumer information needs had shifted to other topics.

In sum, it appears that the percentage of publications offered under various subject matter headings in the Catalog is responsive to national needs and concerns.

The timeliness or currency of publication titles listed in the catalog was analyzed in two ways. First, how recently was the title published, and, second, was the title new (not previously offered) a repeated offering, or a revised offering?

Using the first approach--the age, in years, of the publication when listed in the catalog--it was found that the number of titles published in the year they were offered in the CIC Catalog dropped dramatically, from 33 percent of all titles in 1973 to 15 percent in 1983 (Table 2). Additionally, the number of titles three or more years old more than doubled in the ten year period, from 14 percent in 1973 to 30 percent in 1983. The average age of the publications, at the time they were listed in the catalog, increased from 1.32 years in 1973 to 1.99 years in 1983.

However, the second method of analyzing timeliness does provide somewhat more positive results. This method considers whether listed publication titles were new or not previously offered, the same as previously listed, or revised. The classification is based on a comparison between a title in the current catalog and the next most recent catalog which was included in the sample. In the case of the 1973 catalog, comparisons were made with the Fall 1971 catalog. As Table 3 reveals, more than half of the titles offered in each of the four CIC catalogs were new and not previously offered. Exact repetition of titles previously offered dropped considerably over the decade, from 22 to 21 percent in 1973 and 1975, respectively, to 3 percent in 1979 and less than 5 percent in 1983. The quantity of slightly revised and similar but revised publications remained quite stable from 1973 to 1975, increased in 1979 and reached the highest levels in 1983. The percentages in 1983 were two-and-a-half to three times their 1973 levels. It appears that federal government agencies which provide consumer publications for the catalog dealt with federal budget constraints through frequent revisions of publications to keep them current. This would appear to be a better alternative than to offer the same publication over a number of years.

In sum, the two analyses of timeliness yield conflicting results. Publications, on the average, were several months older when listed in the 1983 catalog; as compared to publications listed in the catalog a decade earlier. However, in 1983, listed titles were much more frequently revised and were less frequently identical to previously offered publications. Agencies appear to be concerned about timeliness and may be doing as well as they can in a period of budget constraints.

The third evaluation criterion was accessibility. This was measured by the price of the publication. Prices were adjusted in all cases to 1983 price levels by the use of the CPI-W. Because of the potential for price changes to be due to changes of publication length, the analysis of publication price was followed by analyses of publication length and price-per-page.

Table 4 displays the results of the analysis of prices of publications. The percentage of all titles which were offered at no charge has varied considerably over the decade. In 1983, 40 percent of all publication titles were free, down from 61 percent in 1979, but still considerably higher than the 29 percent which were free in 1973. The percentage of all publications which were offered at constant 1983 prices of less than one dollar has declined throughout the decade. In 1973, 57 percent of all publications cost less than one dollar, dropping to 31 percent in 1975, 9 percent in 1979 and less than six percent in 1983. In contrast, the percentage of publications priced at three dollars or more increased from the one to three percent range in the 1970's to 28 percent of all publications in 1983.

A different approach to the analysis of accessibility as measured by publication price is the mean price of all publications, including free publications, and the mean price of charge publications. The mean price of all publications remained relatively stable, in the $.58 to $.64 range from 1973 to 1979, then more than tripled to $1.91 in 1983. The mean price of charge publications only showed a steady increase in the price of charge publication over the decade. Prices climbed in increments of $.32 to $.40 between sample years during the 1970's, and then jumped by $1.57, from the 1979 level of $1.62 to the 1983 level of $3.19, in the last four years of the study.

By either approach, there has been a substantial increase in the price of titles listed in the catalog over the ten year period. Can this be accounted for by a change in the length of publications? As Table 5 reveals, the mean length of publication has varied somewhat over the decade, from 25 pages in 1973, down to the 18 and 19 pages in 1975 and 1979, then rising to 22 pages in 1983. The variation in publication is modest (the Cramer's V score is only .09) and cannot explain the much more substantial change in prices. A further analysis, the price-per-page, substantiates this conclusion (Table 6). The results show trends very similar to those found for publication price. The mean price per page of all publications increased from a 2.15 cents to 2.52 cents in the 1970's to a level of 7.83 cents per page in 1983. When the price per page of charge publications was considered separately, the price started at 3.29 cents per page in 1973 and raised more than 10 cents per page over the decade, to 13.33 cents per page in 1983.

TABLE 4. Price Comparison

Price, in 1983 Dollars	1973 N=213	1975 N=252	1979 N=222	1983 N=212
	%	%	%	%
Free	28.6	52.8	61.2	40.1
Under $1.00	56.9	31.3	9.0	5.7
$1.00 to $2.99	11.7	13.5	20.4	25.9
$3.00 or more	2.8	2.4	1.4	28.3
Total	100.0	100.0	100.0	100.0
Mean Price, All Publications	$ .64	$ .58	$ .62	$1.91
Mean Price, Charge Publications	$ .90	$1.22	$1.62	$3.19

Chi square probability = .000
Cramer's V = .300

TABLE 5. Publication Length Comparison

Number of pages	1973 N=208	1975 N=248	1979 N=221	1983 N=209
	%	%	%	%
1 to 4 pages	15.4	20.2	19.5	26.3
5 to 15 pages	31.3	39.5	36.6	23.9
16 to 30 pages	33.1	25.4	25.3	27.3
31 or more pages	20.2	14.9	18.6	22.5
Total	100.0	100.0	100.0	100.0
Mean Number of Pages	24.8	18.5	19.4	21.7

Chi square probability = .007
Cramer's V = .092

TABLE 6. Price Per Page Comparison

Price Per Page, in 1983 Dollars	1973 N=208	1975 N=248	1979 N=221	1983 N=206
	%	%	%	%
Free	27.9	52.8	61.5	41.3
Under 2 cents	24.5	.8	.5	3.4
2 cents to 4.99 cents	34.1	31.5	13.1	3.4
5 cents or more	13.5	14.9	24.9	53.9
Total	100.0	100.0	100.0	100.0
Mean Price/Page, All Publications	2.37¢	2.15¢	2.52¢	7.83¢
Mean Price/Page Charge Publications	3.29¢	4.55¢	6.55¢	13.33¢

Chi square probability = .000
Cramer's V = .347

The analysis clearly demonstrates that the price of charge publications has increased and that the percentage of publication which are not free has increased.

However, cost is not the only measure of accessibility. A more direct method of evaluating accessibility would have been to consider the number of publications actually distributed. While this was not possible with the present data set, some information on the subject was available in hearings published by the U.S. Congress in the 1980s. The number of publications distributed by the CIC in 1980's was 25.6 million. The number dropped to 14.5 million in 1982 and, after a $1.00 user fee was instituted for each request for two or more free publications in 1983 and to six million in 1984. The CIC estimated that seven million publications would be distributed in 1985, saying they expected distribution to stabilize at that level (Nasif, 1985).

The decline was attributed by CIC director Teresa Nasif to cutbacks in free publications and to higher prices set by the Government Printing Office in 1981. Cuts in the budgets of contributing agencies also played a role; many agencies were no longer as wiling to underwrite the free distribution of publications through the CIC (Gottlieb, 1983).

Limitations

The study has several limitations. First, the analysis of catalog offerings was based on information provided in the catalog--that is, the

titles and descriptions of publications rather than a perusal of each of the 899 individual publications. Judgments as to the extent of revision were based on comparisons of catalog descriptions. Second, the number of pages and price per page analyses does not consider the size of the page nor the quantity of information on a page. Page sizes do vary widely among the publications. Extreme examples, when they were identified in the catalog descriptions as charts, posters, and maps, were deleted from the analysis; other page size and quantity of content variations remain. Third, the use of the CPI-W to adjust prices to constant 1983 dollars reflects the average purchasing power of U.S. urban wage earners and clerical workers rather than all U.S. consumers. Additionally, it is not a precise measure of the federal government's rising costs of printing and distributing of consumer information publications.

Summary

Publication titles from four issues of the Consumer Information catalog were analyzed according to the criteria of responsiveness to national needs, timeliness and accessibility. The publications promoted through the catalog were found to be responsive to national needs, particularly in the areas of employment and education, health and housing. The evidence regarding timeliness is mixed; publications in 1983 were of an older average age when listed in the catalog than they had been a decade earlier. However, in each sampled catalog more than half the titles listed had not been offered in a previous sample catalog and the number of revised titles increased over the ten year period.

Budget cuts and federal government policy changes have had a dramatic effect on the accessibility of CIC distributed publications. Between 1979 and 1983 prices of publications rose substantially and there has been a concurrent decrease in distribution levels.

Implications

For consumers, the implications of the study are that consumer information from the federal government will continue to be available, albeit at a high price. More than thirty federal agencies make publications available through the CIC, so a wide range of subject matter is covered by authoritative sources. The agencies demonstrate a concern for timeliness of information by their frequent revisions of publications.

Consumers may also be concerned about the survival of the CIC, based on the termination of two other federal consumer programs in recent years--the U.S. Office of Consumer Education and the Consumer Information Resources Network. Federal government support of the CIC, through appropriations, appears to be relatively stable. An administration attempt to cut the CIC budget by 74 percent in fiscal year 1984 was rejected by the Congress. In fiscal year 1985, the administration returned to its policy of requesting CIC appropriations at an amount similar to that appropriated in previous years. Federal department and agency support for the CIC, as measured by their participation in the CIC publication distribution programs is not only strong, but increasing. More government departments and agencies distributed publications through the CIC catalog in 1985 than in 1983 (CIC Catalog, 1983 & 1985). Apparently they view the CIC as an effective and efficient distribution system which is important to their ability to reach a vast U.S. audience with consumer information.

In short, the CIC appears to be a survivor of recent federal budget reductions, although at a reduced level of distribution. The consumer's responsiveness to catalog offerings and the need for the federal government to be able to reach consumers with information, directly and at reasonable cost, are major strengths of the CIC.

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DIFFERENCES IN HUSBAND AND WIFE COPING STRATEGIES FOR NEVADA DUAL-EARNER COUPLES

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Abstract

This study investigated stress management differences between dual-earner husbands and wives. Dual-earner wives were found to utilize behaviors associated with the strategy of modifying family/-work roles and standards to a significantly greater degree than did their husbands. Child density and age of youngest child were found to be negatively correlated with the strategies of procuring support/maintaining family roles and relieving personal stress/maintaining a positive perspective.

Introduction

The number of dual-earner couples has greatly increased over the last two decades (3; 28). In 1968, the number and proportion of dual-earner families about equalled those of traditional single-earner families (45 percent in each case). By 1978, 51 percent of all married couples were dual-earners while just 33 percent were single-earners. A recent report for the early eighties' projects that only 6 percent of the population will maintain the traditional family model where the husband works outside the home and the wife cares for the children and home (15).

This significant shift from single-earner households to dual-earner households has occurred for at least two reasons (5). First, there are increasing numbers of women who enter the work force in order to gain greater self-fulfillment and more stimulating roles apart from the home (4; 25). The second reason concerns the response of most families to a changing, more demanding economic environment. The price of goods and services for the normative level of living has become so challenging that many families find it necessary for both the husband and wife to seek employment in the work force (25; 29).

As a new social structure, dual-earner couples face certain structural and psycho-social adaptations in response to the demands resulting from both spouses engaging in work roles (7). Fleck (21) investigated the interaction of the family with the world of work, identifying this phenomenon as the "Work-Family Role System." According to his description, there are four roles which exist within the system: (a) the male family role; (b) the female family role; (c) the male work role; and (d) the female work role. Each of these roles contributes to both the work environment of the husband and wife, and to the type of life style experienced by the family.

Additionally, McCubbin (12; 14) proposes that these four work and family roles operate from a management perspective, within a demand-capability continuum. In effect, work and family roles place greater demands on the dual-earner family structure than would be experienced by traditional single-earner families. These role demands call for managerial responses using personal and family resources. When role demands exceed the dual-earner family's capability to meet them, an imbalance is produced within the family system which results in the disruption of roles or decline of family well-being. Thus, balance among these roles is important as the demands of one role directly affect the performance of the remaining three roles and distribution of resources among the roles is crucial to family well-being (1).

Researchers have found, however, that balance is difficult to achieve due to internal and external stress-related factors which are intrinsic to the nature of the dual-earner life style (1; 7; 26). Internally, many dual-earner couples experience role conflict within the family structure due to: (a) established traditional values, conflicting with the new life style; and/or (b) differential training patterns in task allocation between males and females (16; 17; 21). For example, a husband who attempts to devote more time to his family role may find those attempts in conflict with the demands of his work role. Conversely, a working wife may be caught in a reverse pattern where work roles conflict with expected family roles.

Externally, society has been insensitive to the emerging dual-earner life style and the changing nature of family and work roles (15). Dual-earner families have been labeled atypical and, because they "buck the system," are looked upon unfavorably (7; 10). Social institutions have also been inflexible, as well as insensitive, to dual-earner families' needs. Work institutions compete for spousal involvement and commitment (14; 26). When couples are unable to meet the demands of both work and home adequately, they experience stress and frustration with the dual-earner life style.

In the past, researchers focused on the maladaptive aspects of families under stress, viewing stress as a destructive force within all families, leading to disfunction or dissolution (6; 13; 19). These findings were supported by Holmstrom (10), who found that dual-earner couples either divorced or disengaged from the dual-earner family life style (i.e., the wife, usually, would leave her career position to return to fulltime homemaking).

Although stress can be destructive, family researchers are currently shifting away from this "dysfunctional" view of stress, especially in the

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area of dual-earner families (6; 13; 19). The focus has shifted with the recognition and documentation that some families, despite facing hardships and excessive demands, are able to endure the impact of work and family role stress by utilizing certain behavioral and cognitive management strategies (19). Such strategies are referred to as coping.

Investigation into the phenomenon of coping within dual-earner couples is in the early stages of research (27). As Skinner and McCubbin (27) point out, theoretical development is still far from complete. Certainly, any further insight as to how dual-earner families adjust to and manage stresses of the dual-earner life style would benefit this rapidly increasing population.

Purpose of the Study

The purpose of the present study was to examine the different strategies dual-earner families use to cope with the stresses of their life style. More specifically, this study examined differences between dual-earner husbands and wives in relation to four coping strategies commonly used by dual-earner couples, as defined by Skinner and McCubbin's (27) Dual-Employed Coping Scale instrument. It was projected, using previous research findings, that dual-earner wives would utilize the four stress management strategies to a significantly greater degree than dual-earner husbands.

In addition, this study investigated researchers' findings (31) that suggested that the number of children and the age of the youngest child would be factors associated with husbands' and wives' coping styles.

Sampling Procedure and Instruments

This study was derived from the Nevada Family/Work Project funded by the Research Advisory Board of the University of Nevada, Reno. Data used for this study were collected from respondents in Northern Nevada. A preliminary interview screening process was used to determine eligibility for the study. In order to qualify, both spouses had to be currently employed in non-professional occupations (35 or more hours per week). One to one and one-half hour interviews were then scheduled with qualified couples willing to participate in the study. Husbands and wives were interviewed by same sex interviewers at the same time, with spouses out of hearing range of one another. During the interviews respondents were given a set of 10 standardized instruments with instructions to complete the questionnaires in the interviewer's presence.

Only one of the ten instruments, the Dual-Employed Coping Scale (DECS), was used to collect data for this study. The Dual-Employed Coping Scale(s) (27) were developed to more systematically study coping behaviors and patterns of dual-earner families. The instrument contained 49 self-report items, utilizing a five point Likert-type scale, which spouses responded to individually. Each item addressed a specific coping behavior. Cronbach's Alpha measure of internal reliability for the DECS was .86. Four subscales, which identified separate coping patterns, emerged when the original scale was factor analyzed. The subscales are as follows:

I. Maintaining, Restructuring, and Strengthening the Family System. Items in this factor focus on coping behavior utilized both at work and at home which deal with family issues.

II. Procurement of Support to Maintain Family Roles. This factor consists of behaviors aimed at securing outside support, goods, services and identifying responsibility for child rearing tasks.

III. Modifying Roles and Standards to Maintain a Work/Family Balance. These items address behaviors which attempt to accommodate work to family and family to work.

IV. Maintaining a Positive Perspective on the Life Style and Reducing Tensions and Strains. These are behaviors which attend to personal needs and focus on reducing individual stress, and maintaining an optimistic definition of the situation.

Sample Description

The sample consisted of 35 married couples (n = 70) ranging in age from 21 to 51 years of age. The couples represented a white, work-class socioeconomic group. Most of the respondents had experienced some college, although the majority had not completed either a college or post-graduate degree. The number of children in the home ranged from zero to two. The age of the youngest child varied from less than 1 year of age to 18 years of age. Twenty-nine percent of the couples sampled were without children. The age of the youngest child in 20.0% of the households with children was 1 year or less. In 24.0% of the households the age of the youngest child was 2 to 5. Identical percentages, 20.0%, were reported for households in which the age of the youngest child was 6 and 11, as well as for the age group of 12 to 17 years of age. In 16% of the households with children, the youngest child was age 18 or above.

Non-randomized methods of solicitation were used to obtain the sample (e.g., public service announcements through the media of television and radio as well as letters and bulletins locally distributed, were used to solicit responses; after initial responses were obtained the snowball technique was used to increase sample size).

Results of Data Analyses

The dependent variable in all analyses was gender and independent variables were the four coping strategies identified as subscales in the DECS instrument. Analyses of covariance with child density and age of youngest child identified as covariates were used to explore husband and wife differences for each of the subscales. Adjusted and unadjusted means for each measure are presented in Table 1. Specific findings for each of

the individual measures are provided in Tables 2 through 5.

Table 1. Mean Score Husbands and Wives on DECS Scales

Subscale	Husbands		Wives	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Maintaining Family Systems	53.66	**	57.37	**
Procurement of Support	25.60	25.45	27.51	27.67
Modifying Roles and Standards	48.17*	**	53.00*	**
Maintaining Perspective Reducing Tension	49.89	49.80	49.40	49.48
Total Scale	177.31	177.09	187.29	187.51

* Significance: $p < .01$.

** Covariates did not contribute significantly, so adjusted means are not reported.

Significant differences were revealed by the analyses between dual-earner husbands and wives for only one of the coping strategies (Subscale III), modifying roles and standards, F (1,66) = 7.195, $p < .009$ as shown in Table 4. Dual-earner wives were found to use this management strategy to a significantly greater degree than dual-earner husbands. Results (illustrated in Tables 2, 3, and 5) indicate no significant differences were found between husbands and wives for the other measures. These results reveal, however, a number of significant relationships between the covariates selected and the subscales examined.

Table 2. Analysis of Covariance on Subscale I by Sex with Child Density and Age of Youngest Child as Covariates

Source	df	MS	F	P
Covariates	2	85.536	.792	.457
Child Density	1	19.676	.182	.671
Age of Youngest Child	1	64.661	.599	.442
Sex	1	244.524	2.265	.137

Table 3. Analysis of Covariance on Subscale II by Sex with Child Density and Age of Youngest Child as Covariates

Source	df	MS	F	P
Covariates	2	3627.649	48.020**	.001
Child Density	1	3445.461	45.609**	.001
Age of Youngest Child	1	436.640	5.780*	.019
Sex	1	86.062	1.139	.290

* Significance: $p < .01$.

** Significance: $p < .001$.

Table 4. Analysis of Covariance on Subscale III by Sex with Child Density and Age of Youngest Child as Covariates

Source	df	MS	F	P
Covariates	2	45.195	.810	.449
Child Density	1	63.361	1.136	.290
Age of Youngest Child	1	.023	.000	.984
Sex	1	401.291	7.195*	.009

* Significance: $p < .01$.

Table 5. Analysis of Covariance on Subscale IV by Sex with Child Density and Age of Youngest Child as Covariates

Source	df	MS	F	P
Covariates	2	1263.217	21.023**	.001
Child Density	1	962.094	16.012**	.001
Age of Youngest Child	1	285.880	4.758*	.033
Sex	1	1.857	.031	.861

* Significance: $p < .05$.

** Significance: $p < .001$.

Neither covariates named were found to contribute significantly to the variance of scores for the measure of maintaining, restructuring the family system (Subscale I) or modifying roles and standards (Subscale III). However, on the second scale, procuring support to maintain family roles, both variables were found to contribute significantly (child density, $p < .001$; age of youngest child, $p < .019$) to the variance of the husbands' and wives' scores. A significant contribution was also made by the covariates (child density, $p < .001$; age of youngest child, $p < .003$) to the variance found in scores for dual-earner husbands

and wives on the measure of relieving personal stress and maintaining a positive perspective.

Further analysis was prompted by these findings. Correlational analysis was used to determine the strength and direction of the relationships. Significantly negative relationships existed between both covariates and the two subscales (see Table 6). Specifically, the greater number of children in the home, the less likely were the dual-earner couples studied to use the coping management strategies of procuring support to maintain family roles (Subscale II) and relieving personal stress by maintaining a positive perspective (Subscale IV). The opposite relationship would, in turn, be true for having young children in the household. The younger the child in the house, the more likely dual-earner couples were to use these coping strategies.

Table 6. Correlation Coefficients for DECS Subscale Two and Four with Child Density and Age of Youngest Child

Subscale	Child Density	Age of Youngest Child
II. Procuring Support and Maintaining Family Roles	-.744*	-.556*
IV. Relieving Personal Stress and Maintaining a Positive Perspective	-.587*	-.491*

* Significance: $p > .001$.

Thus, in the final analyses, only the third coping strategy, modifying work and family roles, revealed significant differences between husbands and wives. Support for the third subscale shows that dual-earner wives are more likely than their husbands to use the management strategy of modifying family/work roles and standards when faced with stresses of the dual-earner life style.

The analyses of covariance, however, generally supported the use of the two covariates, child density and age of youngest child. Although the covariates did not have a significant association with the dependent variable for the first and third subscales analyzed, a significant relationship between the covariates and the dependent variable for the second and fourth subscales did exist. Correlational analyses showed this relationship to be negative. This indicates that having children and the age of the youngest child are negatively associated with procuring support to maintain family roles and with relieving personal stress by maintaining a positive perspective.

Discussion

This study's findings revealed that dual-earner wives were more likely than their husbands to use the management strategy of modifying work/family roles and standards when dealing with the stresses of the dual-earner life style. This meant that wives were more likely to limit their work involvement, modify their work schedules, and modify their household roles and standards in response to the stresses of their life style than were their husbands. This supports research findings of Skinner and McCubbin (27) who found dual-earner wives to be actively involved in strategies aimed at accommodating work and family roles in an attempt to maintain family balance.

This finding indicates that employed wives are still responsible for managing the greater proportion of household tasks, and validates time studies which have found that even though husbands of employed wives spend proportionately more time doing household tasks than husbands of housewives, the actual time difference was insignificant (30; 31). Additionally, the finding supports Perlmutter and Wampler's (20) study which revealed that even when both spouses were employed outside the home, household tasks were still most likely to be performed by the culturally approved spouse...the wife.

Significant differences between dual-earner wives and husbands on subscale three also substantiates Pleck's (21) Work/Family Role model which proposes that women's family roles experience greater permeability to role intrusion from their work roles than do men's family roles. Wives are more likely to modify their work roles in response to family demands. This may be because dual-earner wives are more sensitive to work/family conflict than are their husbands (2; 26; 28).

Findings in this study also indicated that controlling for the effects of child density and age of youngest child was appropriate. The variables of child density and age of youngest child were found to be significantly related, having a negative or inverse relationship, to two of the coping strategies examined. The first relationship found was with the coping strategy of procuring support and maintaining family roles. Behaviors associated with this strategy include: eating out frequently; hiring help to care for children; negotiating who will stay home with a sick child; and identifying one partner as having more responsibility in certain household areas. The negative relationship indicates that dual-earner couples who have a number of children are less likely to engage in these behaviors while families with young children are more likely to use this strategy. Although correlational analyses does not allow cause and effect statements to be made, it can be speculated as to why such a relationship exists.

It may be that dual-earner couples are not engaging in this coping strategy due to the economic conditions within the family system which change as the number of children increase. Hofferth (9) found that the number of children define family living standards and suggested that the number of children in the home is an indicator of socioeconomic well-being. Hofferth (9) states that if two families at the same level of family income were compared, the one with more children would have the lower level of living. In light of these findings, it may be that as dual-earner families increase in number of children, economic resources

are limited or constrained and dual-earner couples refrain from discretionary expenditures such as eating out and procuring outside child care.

The reason that families with young children would be more likely to use this strategy may be related to the family's stage in life-cycle. Olson et al. (19) found that interaction with support outside the home was heightened during the early and late stages of the family life-cycle (i.e., preschool years and child launching years) and significantly lessened in the in-between stages. Families with young children obtain and use more resources outside the home. For instance, Skinner (26) and Poloma et al. (22) have found that finding adequate child care arrangements is important for many young dual-earner couples. In addition, infants and toddlers may require more goods and services for optimal growth (e.g., planned physician's visits or specific formulas and diets) than older children.

The study's findings also revealed the variables of child density and age of youngest child to be significantly related to the management strategy of relieving personal stress and maintaining a positive perspective. Behaviors associated with this strategy include: ignoring comments about gender correct behaviors; ignoring criticisms of working parents; believing that they were good role models as parents; planning time for self; maintaining health; and believing that work is good for personal growth. Correlational analysis again revealed an inverse relationship. Thus, dual-earner couples with a greater number of children in the home were less likely to engage in these behaviors while families with young children were more likely to utilize these strategies. Recognizing cause and effect limitations in correlational analyses, speculation can be made as well for why such relationships exist.

The presence and number of children within the home constrain economic resources (9). This fact would suggest that those families with higher numbers of children would probably be concerned with meeting urgent needs of the family system as a whole rather than being concerned with individual interests. Furthermore, increasing the number of children in a family increases the level of complexity of the dual-earner life style (11; 26). Demands made on work and family roles are heightened and multiplied proportionately (24; 31). Thus, it may be there is less time or opportunity to relieve personal stress when there are a number of children in the family and economic resources are likely to be restricted to the welfare of all family members rather than to the welfare of individual members. This in turn may lead to a decrease in the ability to maintain a positive perspective as personal stress can not be attended to.

The reason families with young children would be more likely to utilize this strategy may again be related to their family life-cycle stage. Olson et al. (19) found that husbands and wives seem to be more responsive and less likely to wait out crises in the earlier stages of the family life-cycle than in the later stages. The couples in the earlier stages of the life-cycle more readily acknowledge responsibilities and stressors and take charge during life events and crises more quickly than couples in the later stages, thereby relieving their personal stress. Moreover, Okun and Rappaport (18) showed that families in the later stages of the family life-cycle seem to be more vulnerable to feedback from outside systems (especially when children were attending school) than families in the earlier stages. Families with school age children are more likely to encounter criticisms and comments from outside the family. Issues such as children being home alone after school or children needing special instruction and support from parents may elicit criticism of the parent's dual-earner life style. As a result, dual-earner couples with older children may find it more difficult to ignore criticisms or appreciate any personal growth from working.

No significant differences were found between dual-earner husbands and wives for three of the subscales. Skinner and McCubbin (27) also found there were no significant differences between dual-earner husbands and wives in their use of the strategies involved in maintaining, restructuring, and strengthening the family system, and, procuring support to maintain family roles. Skinner and McCubbin's (27) findings differed from the findings in this study, however, in that they found significant differences between dual-earner spouses in their use of the management strategy of relieving personal stress and maintaining a positive perspective. Several reasons may be offered to explain differences between the present study's findings and Skinner and McCubbin's (27) research.

First, the traditional emphasis of family roles has lessened through time to the point that dual-earner spouses may have become more androgynous in many of their coping responses, although, as this study shows, not in all coping responses. Some husband and wife differences in coping still exist. Most of past research on dual-earner couples was conducted in the late sixties and early seventies (8). At that time it was considered a deviant family form. Societal antagonism and conflict with the dual-earner life style existed (10; 15). Within the past five years, the life style has become more prominent and more accepted within society, although perhaps social institutions have not completely adjusted. Ballings and Nye (23) proposed that modeling by forerunners in the dual-earner life style will increase the likelihood that following generations will favor social equality. It may be that time and widespread experience with the dual-earner life style have evolved management strategies for spouses of dual-earner families allowing them to respond to stressors with more similarity than dissimilarity.

Another possible reason there were differences between this study and past research could be that 60% of this sample had experienced some level of college education. The recent thrust in higher education has been towards equal opportunity in placement and advancement in the work world for women as well as for men (25). Individuals who have had educational endeavors beyond high school are likely to have received greater exposure to changes in sex-role expectations and socialization for androgynous roles. Exposure may have allowed participants in the dual-earner life style to explore the costs and benefits of an androgynous

life style and make decisions towards similar strategies in coping (25).

Finally, differences could potentially be attributed to the fact that a non-probability sampling technique was used to obtain the sample. As a result of using volunteers, the sample was self-selective, and additional variables not controlled for in the analyses of covariance may have affected the results of the study.

Conclusions

The number of dual-earner families in our country today has increased tremendously over the past two decades (15). Researchers assessing demographic trends predict that the dual-earner life style will be the wave of the future (29).

Researchers have also decided that most families do not seem to have as much difficulty in choosing the life style as in implementing it (7). The present study indicated that one way in which dual-earner wives satisfy work/family conflict is to lower their standards for performance in the home and work-place. Home economists and family life practitioners need to be at the forefront in understanding this phenomenon and in prescribing ways to assist dual-earner families.

There is some evidence that the profession is already responding to these needs. Home economics programs in secondary education have been developed with the purpose of helping young children develop skills in parenting and home management in relation to work and family role balance. Parenting education programs which stress the importance of raising children to cope with both work and family roles have also been developed (25).

However, there is more that could be done. Home economists could be responsible for developing programs aimed at helping both dual-earner spouses establish ways of managing time and creating acceptable home management standards to lessen the pressures of the dual-earner life style. Family life practioners could become more active in helping individuals and families in the dual-earner life style shape honest, realistic expectations of the life style in light of expected interpersonal and economic costs and benefits.

Stringer-Moore (29) states that "dual-career and dual-worker couples are increasing in numbers and will be major challenges to prospective employers in the coming decades. They will also challenge professionals involved with families. Both groups need to be prepared to meet the challenge. Much is already known about their life style but much more has yet to be investigated. Further research is needed to investigate the dynamics of coping strategies within these families in order to understand why some families are able to endure and overcome the stresses of the dual-earner life style.

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WRHMFEE CONFERENCE

MINUTES

November 14, 1986

1. The meeting was called to order at 1:00 p.m. by President Arlene Holyoak.

2. The minutes of the 1985 Conference were approved.

3. Karen Schnittgrund presented the WRHMFEE financial report and the newsletter financial report. (See below.) In addition, a check for $970.00 was received as a transfer from the scholarship fund which was held at Colorado State University. All funds, except the newsletter account, have now been consolidated into one WRHMFEE fund to be administrered by the Executive Director.

4. Conference Committee Reports:

   a. 1985 Conference--Georgianne Baker presented the final financial report for the 1985 conference in Scottsdale, Arizona. All bills from the conference have been paid and the account is closed. Fifty-three people participated in the 1985 conference.

   b. 1986 Conference--Jeanne Smith gave the preliminary report on registration for the conference. Sixty-two were registered including 46 regular attendees, 7 one-day attendees, 7 students, and two complimentary.

   c. 1987 Conference--Ruth Berry and Phyllis Johnson invited the conference to Vancouver, B.C. in November, 1987. The meeting will be held on November 5 - 6, 1987. The theme will be the Economics of Health and Welfare. The group completed a survey regarding their preferences for the conference.

   d. 1988 Conference--Jeanne Peters invited the conference to Reno, Nevada for the 1988 conference. Details will be announced in 1987.

   e. Proceedings--Ruth Berry announced that the 1985 Conference Proceedings have been completed and mailed to the participants. Papers for the 1986 Conference are due and she should receive them by December 15.

5. Committee Reports:

   a. WRHMFEE Research Awards--Sally Horton reported that 5 applications were received for the Masters award. Nanci Cummings from the University of Nevada, Reno was the award recipient. Sally stressed that it is important that award applicants make sure their papers are individual efforts.

   b. Refereed Papers--Jean Lown reported that 5 refereed papers were received with 3 being accepted for presentation. Jean suggested that the policy for this committee, as well as the reviewed papers committee, be revised. Each committee should serve a 3-year term with one person rotating off each year. In addition, the refereed papers committee should suggest respondents for the accepted papers. The committee's suggestions were accepted and will be implemented beginning in 1987.

   c. Reviewed Papers--Karen Schnittgrund reported that 9 reviewed papers were received. One was withdrawn and 8 were presented. She suggested that one member of the reviewed papers committee each year should be from the host conference committee. This allows the planning committee access to information needed for planning the conference.

   d. Nominations Committee--Jeanne Peters nominated Norma Redeker as President for 1986-87. Georgianne Baker nominated Sally Horton from the floor. Nominations were closed. Sally Horton is the new President. Arlene Holyoak was nominated as Executive Director-elect with her term beginning November, 1987. She was elected by acclamation.

6. Old Business:

   Suzanne Tucker presented the index of Proceedings for 1970-79. Because key words were not included in the past, it was not possible to include a content index. Nancy Drennan moved that key words be required on all future papers starting in 1987. Jean Lown seconded. The motion carried. Sally Horton questioned whether or not volume numbers would be used on Proceedings. Since this was agreed on last year, it will begin with the 1986 issue.

7. New Business:

   a. Helen Mau announced vacancies at San Francisco State.

   b. Jean Lown presented information on the Association for Financial Counseling and Planning Education.

c. Georgianne Baker announced that ASU has a new department name--Family Resources and Human Development. In addition, she encouraged people to apply for the Department Chair vacancy.

d. Arlene Holyoak announced the following appointments:

Georgianne Baker -- Proceedings Editor, 1987-88.

Refereed Papers Committee -- Norleen Ackerman (chair)

Reviewed Papers Committee -- Virginia Halderman (chair)

8. Meeting adjourned at 2:30 p.m.

Respectfully submitted,

Karen P. Schnittgrund

WRHMFEE ACCOUNT

Balance 11/4/85		$1,508.29
Receipts:		
Interest	$ 64.50	
Sale of Proceedings	232.00	
Transfer from 1981 Conference Fund	1,200.00	
Reimbursement from ASU	250.00	
TOTAL		1,746.50
		$3,254.79
Disbursements:		
Proceedings	$ 655.38	
Supplies, Telephone, Postage	114.16	
ASU Conference	922.50	
Advance to Miyako Hotel	250.00	
1985 Scholarship	150.00	
1986 Scholarship	300.00	
Loan to 1986 Conference		
Honoraria	350.00	
TOTAL		- $2,742.04
BALANCE		$ 512.75

WRHMFEE NEWSLETTER ACCOUNT

Balance 11/4/85		$343.99
Income:		
Subscriptions	242.50	
Interest	14.54	
TOTAL		257.04
		$601.03
Expenses:		
4 (120 copies)	$ 45.36	
1 (120 copies)	42.22	
2 (120 copies)	43.59	
3 (120 copies)	57.76	
TOTAL		- $188.93
BALANCE		$412.10

WRHMFEE CONFERENCE 1985

Financial Statement

Income			
Beginning Fund			$1,300.00
Receipts (Conference)			
Registration	44 @ $60.00	$2,640.00	
	3 @ $15.00	75.00	
	4 @ -0-	-0-	
Meals	1 @ $10.00	10.00	
	2 @ $14.00	28.00	
	2 @ $10.00	20.00	
	Sub-Total	$2,773.00	
Receipts (Other)			
Contribution to Women's World Banking*		400.00	
University contribution		215.59	Total $4,688.59
Expenditures (Conference)			
Programs, Brochures, Mailing, Advertising		264.60	
Meals and Refreshments		2,602.45	
Travel and Lodging for Speakers		460.00	
Meeting Rooms		200.00	
Entertainment		200.00	
Contribution to Grey Panthers		50.00	
Contribution to Women's World Banking		400.00	
University Services and Overhead		310.37	
Conference Papers		201.17	
	Sub-Total	4,688.59	Total $4,688.59
	BALANCE		-0-

*Contribution funded by ASU Center for Latin American Studies and U of A International Agriculture Programs.

WRHMFEE CONFERENCE 1986

Financial Statement

Receipts

UCD CEIO Office:			
Registration	40 Regular @ $85.00	$3,400.00	
	6 Student @ $15.00	90.00	
	7 One-Day @ $40.00	280.00	
	2 Complementary	--	
	1 Program Assistant	--	
Scholarship Fund		57.50	
Extra Proceedings	6 @ $10.00	60.00	
Newsletter	32 @ $2.50	80.00	
Extra Meals		48.00	
	Sub-Total	$4,015.50	
On-Site:			
Registration	6 Regular @ $85.00	510.00	
	1 One-Day @ $40.00	40.00	
Newsletter	2 @ $2.50	5.00	
Extra Meals		48.00	
	Sub-Total	$ 603.00	
Scholarship Fund payment for Masters Award Student's Registration and Meals		50.00	
	Sub-Total	$ 50.00	Total $4,668.50

Expenses

UCD CEIO			
Staff Time	$550.00		
500 Flyers	129.49		
Postage	28.75		
Folders	23.20		
Roster, Program, Packet Inserts	75.07		
Name Tags, Holders	45.75	$ 852.26	
Miyako Hotel			
Dim Sum Reception, Bartender, Tax, Service Charge, AV	791.76		
Coffee Break	244.46		
Lunch, O.T. Waiters, Tax, Service Charge, AV	737.70		
Breakout Room	150.00		
Breakfast, AV	334.36	$2,258.28	
J. Smith Long Distance	$ 81.43		
Ferber Honorarium and Travel	500.00		
Shields Honorarium	100.00		
Scholarship Fund	57.50		
Proceedings (46 Regular, 6 Extra @ $10.00)	520.00		
Newsletter (34 @ 2.50)	85.00	$1,343.93	Total $4,454.47
	PROFIT		$ 214.03

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